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## SALE OF INFERIOR FRUIT.

WHAT IS THE FIRST STEP towards improvements in the marketing of fruit in Australia —still our best market?

A well-known Victorian grower, as reported in this issue, urges that as a commencement the Vine and Vegetation Diseases Act be amended to give inspectors more power as regards diseased and grubby fruit found in the possession of those marketing fruit. This would not apply to fruit being carted, say, to piggeries, but it would apply to those who buy this low-grade fruit from growers, and who take it to country districts or hawk the fruit from door to door, or sell by the roadside; also, to growers who have the fruit in their possession, on the way to, or at the markets.

Prosecutions are now regularly and successfully launched by the Department of Agriculture wherever the sale of this badly inferior fruit can be proved. But it is very difficult at times to prove the sale, and the powers of inspectors are thereby limited.

It needs the emphatic voice of the industry to bring about the improvement suggested.

:: :: :: ::

The opinion of growers on this subject is invited.

:: :: :: ::

At the same time, research work is long overdue to find profitable uses for low-grade Apples and Pears, and all other kinds of fruit.

The pure fruit drink trade has not by any means been fully developed. Rather, it has scarcely as yet commenced.

## PRIMARY PRODUCTS MARKETING BILL.

**Amendments Sought by Growers.**

AT A REPRESENTATIVE conference of delegates of Victorian fruitgrowers' associations to consider the Primary Products Marketing Bill now before Parliament, Mr. G. W. Brown presiding, it was decided (while expressing no opinion as to applying the Bill to the fruit industry) to recommend amendments as follows:—

(1) To delete the clause giving sons and daughters of producers the power to vote for a board—voting should be one man one vote.

(2) That instead of a board being constituted "if 55 per cent. are in favor, three-fifths of the producers having voted," the proportion to constitute a board be "60 per cent. of the growers on the roll" (voting is compulsory).

(3) Instead of a board of three (two growers' representatives and a Government nominee) two to form a quorum, the board to consist of five (four elected by the growers and one Government nominee), three to form a quorum.

(4) To define clearly the effect on the fruit industry; "variety" is mentioned, not "kind." Each section to have the right to decide by poll whether or not a board shall be set up—sections as follows: (a) Apples, (b) Pears, (c) citrus, (d) berry fruits, (e) stone fruits, (f) other soft fruits (g) canning fruits.

(5) To delete the clause giving the board power to levy ½d. in the £ for a reserve fund (the board having sufficient power under other sections to make levies).

## LOW QUALITY FRUIT.

**Amendment of Vegetation Diseases Act Urged to Raise Standards.**

Mr. Frank Moore, managing director of the Southern Pear Packing Co. Ltd., and a Victorian delegate to the Australian Apple and Pear Export Council, at a recent meeting of growers urged that the Vegetation Diseases Act be amended to provide that diseased or codlin affected fruit in transit on growers' or others' waggons or trucks be a punishable offence.

At the present time it is necessary to prove a sale of this inferior fruit before a prosecution can be successfully launched.

The idea is to lift the standard of fruit offered for local sale.

The foregoing suggested amendments have been submitted to members of Parliament.

Regret has been expressed by growers that Parliament, dividing on party lines, has so far retained the clause giving sons and daughters of producers the power to vote.

## MENACE OF NEGLECTED ORCHARDS.

CONCURRENTLY with the earnest effort now being made in Victoria for the establishment of experimental orchards and for increased horticultural research, there is the need for drastic action to clean up or destroy neglected orchards.

Would the Health Department permit the continuance of areas where human diseases are bred?

Yet in the heart of many important fruit-growing districts there are neglected orchards, which are nothing more nor less than breeding grounds for pests and diseases.

Growers are urging the Department of Agriculture to exercise its powers in dealing with this serious menace.

**The time for action is NOW.**

## CITRUS EXPORT PROBLEMS.

**Growers are Earnestly Seeking More Effective Assistance from the Federal Government.**

CITRUS GROWERS in N.S.W. are urging a reconsideration by the Federal Government of the conditions affecting the export of Oranges this season.

The loss of the New Zealand market is a tragedy. Many factors entered into the N.Z. embargo, political and economic —but no blame can be placed on the shoulders of the citrus growers.

With the loss of the N.Z. market came the necessity to develop other export markets to save the local market from collapse.

The Federal Government agreed to guarantee out-of-pocket expenses on all 1933 Orange exports — except to New Zealand: 78,000 cases were exported, and the total cost to the Government was about £3,000.

**Everyone connected with export, except the grower, received full payment for services.**

The Government's liability was reduced by the All Risks Insurance taken out by growers: the then Minister of Commerce (Mr. Stewart) agreed to recommend to Cabinet that the extra premium —5d. per case—be refunded by the Government.

**The refund was not made.**

Instead, the guarantee was raised to 13/5: thus fruit realising this amount (although the grower got nothing) did not participate, and the grower had to pay the premium.

**This is deemed to be a breach of faith.**

In 1934 the overseas export was necessarily heavier. Owing to the abnormal season, fruit which previously carried well, arrived in bad condition, and prices were disastrous.

**Once again the guarantee operated to reimburse all except the growers, many of whom sent their choicest fruit and received nothing at all.**

And, again, the Government's liability was reduced by the All Risks Insurance. The total claims to be paid by the Government are about £10,000. But the growers' losses are about £50,000.

Other sections of primary industry are receiving assistance, but the citrus grower, who has lost a valuable market

through no fault of his own, appears to be overlooked.

A bounty of 3/6—a reasonable minimum—was requested. But a bounty of 2/- a case was decided upon. Co-operative packing houses and leading growers state they are not in a position to risk overseas export under these conditions.

The decision to confine the bounty to exports to U.K. was a bombshell.

It is just as necessary to exploit the Canadian and Continental markets, which offer equal opportunities to the U.K.

Two shipments of Oranges, totalling 6,000 cases, made to Belgium in 1934, sold at prices above those ruling in London at the same time. However, the Belgian Government, in retaliation for the restrictions placed on shipments of glass into Australia, imposed a heavy duty, which meant the growers received nothing for their fruit. The Department of Commerce refused to allow this duty to be deducted from the charges, although this item was not included when the original amount of 13/- was made up, and claims were refused under the guarantee.

The Federal Government would do well to reconsider this matter, and to make their assistance of practical value thus to establish an industry which, with due care at this stage, should soon prove a national asset.

### SCIENTIFIC RESEARCH.

It is understood that the Federal Ministry is considering a proposal to increase the annual grant to the Council for Scientific and Industrial Research by over £10,000. The grant for the current year was £105,000. The C.S.I.R. needs additional funds to undertake important work referred to it by the last meeting of the Agricultural Council.

### MELBOURNE ROYAL SHOW.

The 1935 Melbourne Royal Show will be held from September 19 to 28. Liberal prize money is offered for all varieties of fruit. Entries close on August 17. Prize lists may be obtained from the secretary of the R.A.S. of Victoria, Mr. Louis Monod, 422 Collins-street, Melbourne.

### BANANA TRANSPORT.

The Council for Scientific and Industrial Research recently issued Bulletin No. 91, entitled "Further Investigations Into the Transport of Bananas in Australia," by E. W. Hicks, B.A., B.Sc., and N. E. Holmes, B.E.E. Much valuable information is contained in this bulletin.

## News in Brief.

The Southern (Victoria) Fruitgrowers' Association is seeking to have defined standards gazetted for lime sulphur, arsenate of lead, and nicotine solutions. The importance of the polysulphide content for lime sulphur is stressed as against the previously accepted baume test.

:: :: :: ::

A huge development in Passionfruit growing has taken place at Red Hill, Victoria: 200 acres are now planted: this year the area is expected to be 400 acres, or 25 per cent. of Australia's Passionfruit area. The hope of the enterprise is on the sale of pulp and juices locally and abroad.

:: :: :: ::

Victorian fruit retailers are urging that long bushel (or upright) cases be no longer used for hard fruits.

:: :: :: ::

Bridgetown (W.A.) growers favor the continuance of the redwood dump case for export Apples.

:: :: :: ::

Western Australian growers are consulting with the Wool Brokers' Association with a view to arranging mutually agreeable dates for lifting cargoes.

:: :: :: ::

The export of N.S.W. Granny Smiths in February is deemed by W.A. growers to be unwise procedure.

:: :: :: ::

The annual conference of the W.A. Fruitgrowers' Association will be held at Bridgetown from September 5 to 7.

:: :: :: ::

W.A. growers favor the export of 3¼-inch Dunns, as this is a better Apple than a 2¼-inch Apple of the same variety.

:: :: :: ::

Neglected orchards are a menace. W.A. growers are seeking the destruction of such. Similar action is urged by the Victorian Fruit Marketing Association.

:: :: :: ::

Indications so far point to liability this season of damage by frost.

:: :: :: ::

In N.S.W. no time should be lost in putting on the dormant spray on deciduous trees.

:: :: :: ::

To study codlin moth from an all-Australian viewpoint, the C.S.I.R. is establishing a committee to co-ordinate the research work in hand in the several States.

:: :: :: ::

The selling of fruit in case lots was deprecated by Mr. L. T. Pearce, market representative of the N.S.W. Fruitgrowers' Federation, at a meeting at Gosford recently. Growers frequently lost by sending to "uncertain" buyers. Further, they were thus lowering the general tone of the market for country trade.

:: :: :: ::

A delicious sweetmeat, known as Banana Figs, is now being manufactured. It takes from 4-5 lbs. of fresh fruit to manufacture 1 lb. of Banana Figs.

:: :: :: ::

Northern Victoria fruitgrowers are urging that the State Government proceed with the establishing of an experimental orchard on an area of 104 acres purchased by the Government for this purpose.

:: :: :: ::

Yields of Brande's Jordan Almond can be quadrupled by planting Early Papershell or Riverside Peerless in close proximity as pollinisers.

:: :: :: ::

Buds are developing well for a heavy crop of deciduous fruits in southern Victoria next season.

:: :: :: ::

Sixty thousand young fruit trees (mostly Apples) were despatched to Sth. America from Victoria this season.

:: :: :: ::

In the Harcourt district the bud showing is for a good crop of Apples and Pears.

:: :: :: ::

While many varieties of Peach trees in the Goulburn Valley show good bud formation, the varieties Pullars and Thiele's Cling and Golden Queen are not so good, the trees showing the effect of the last heavy crop.

:: :: :: ::

Pear trees in the Goulburn Valley show preliminary indications of a good crop in the coming season.

:: :: :: ::

The Horticultural Division of the Victorian Department of Agriculture comments favorably on the increased use of leguminous crops for green manure.

### HORTICULTURAL RESEARCH.

The deputation from Victorian fruitgrowers associations to the Minister of Agriculture (Mr. Hogan) regarding increased research work will be on Wednesday, July 10, at 12 noon

Dr. Shields, M.L.A., will introduce the deputation.

### FUNGICIDES ACT.

A Bill to amend the Fungicides Act has passed the Legislative Assembly in Victoria. The provisions include the registration of all handlers of fungicides, insecticides, etc., and power by regulation to prescribe official methods of analysis.

## PERSONAL

Mr. J. B. Mills, president of the Australian Apple and Pear Export Council, left per s.s. "Otranto" for London on June 25 for a brief business visit to the United Kingdom. He is due back again in October.

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Mr. G. A. W. Pope, manager, South Australian Produce Department, and chairman South Australian Dried Fruits Board, was in Melbourne at the end of June on dried fruits business. Others included Mr. W. N. Twiss, secretary S.A. Dried Fruits Board, and Mr. G. A. Try, Deputy Chairman N.S.W. Dried Fruits Board.

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Mr. A. J. Honey, acting secretary of the newly constituted Tasmanian State Fruit Board, visited Victoria in mid-June.

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Mr. A. G. Strickland, M.Agr.Sc., Deputy Horticultural Instructor to the Sth. Aust. Department of Agriculture, is esteemed by producers in his adopted State. Mr. Strickland's illustrated lantern lecture on fruit setting at Moorook was greatly appreciated.

### Californian Canning Peaches

**1935 Crop Lighter Than Last Season.**

**OFFICIAL reports from California indicate Cling Peaches with a smaller crop than last season. On the basis of the figure 100 for a full crop the 1933 percentage was 83 per cent., 1934 85 per cent., and 1935 (estimated) 74 per cent.**

Mr. W. Pitts, of Pitts and Lehman, Sydney, left in May for Europe. During his visit abroad he will be in close touch with the fruit interests of Germany, Norway and Sweden, and endeavour to bring about reciprocal trade with Australian fresh and dried fruits. The position with regard to Australian fruits on the European markets at present is not a happy one, and if Mr. Pitts can help make the way clear for the sale of our fruits at a reasonable profit he will earn the warm regard of growers. Mr. Pitts is well known to the Continental fruit interests, and has made many visits to Europe in recent years.

:: :: :: ::

Mr. F. B. MacKenzie, of Kurrajong, N.S.W., was unanimously re-elected chairman of the Hawkesbury District branch of the N.S.W. Fruitgrowers' Federation. Mr. MacKenzie is a capable and popular grower. As a debater he figures prominently in the N.S.W. fruitgrowers' conferences.

# N.S.W. Fruitgrowers' Conference

## Delegates Favor Compulsory Organisation by Sectional Group Committees

**Commonwealth Government Attacked for Inactivity Regarding N.Z. Embargo on N.S.W. Oranges.**

The annual conference of the Fruitgrowers' Federation of N.S.W. was held at Sydney from June 24 to 28, being officially opened by the Governor, Sir Alex. Hore-Ruthven.

General J. Heane presided. The comprehensive report prepared by the secretary, Col. E. E. Herrod, was adopted.

Resolutions were adopted urging research into better methods of pest control—particularly for the fruit fly, improved manurial practise, and for better marketing both locally and overseas.

By 60 votes to 18 conference adopted a resolution in favor of legislation aimed at orderly marketing under a board: growers to be enrolled in divisions representing the several classes of fruit. Voting to be compulsory.

The proposed organisation is largely on the lines of that adopted in Queensland, with sectional group committees and a committee of direction.

The Apple and Pear section voted in favor of country inspection of export fruit, cool storage on wharves, discontinuance of the so-called "three-quarter" case for Pear export in favor of standard bushel; fancy grade Pears with ½-inch hail-marked to be permitted export as fancy H; other suggestions for grade alterations were defined; that the relief grant be paid only on consignment fruit, not to exporters who purchased the fruit.

### N.Z. Embargo.

At the instance of the Hawkesbury district, a strongly worded resolution was carried deploring the inactivity of the Federal Government regarding the N.Z. embargo against N.S.W. Oranges: that the board be instructed to act with others interested in N.Z. trade in presenting a case to the Commonwealth Government.

### New Marketing Act.

The debate on the subject of the new marketing legislation extended over three days of the conference. All aspects were debated. The new proposals were adopted, and recommendations were that voting powers for the management be on the acreage basis—not "one man one vote." Voting to be in the following divisions: (a) Less than 2 acres, (b) 2 to 10 acres, (c) 10 to 25 acres, (d) 25 to 50 acres, (e) 50 to 100 acres, (b) more than 100 acres—voting in each division to be fixed by regulation.

Orchard tax, 1/- per acre, to be continued. At the end of three years a poll to be taken to determine whether the Act shall continue.

### Sydney Markets.

Conference adopted a resolution that the marketing facilities of Sydney be placed under a commission or authority, to include representatives of producers, distributors and consumers.

### Citrus Export.

Conference emphatically rejected a resolution which suggested the right to choose between an export bounty and a guarantee on citrus export. It was stated that growers should be guaranteed at least 3/6 per export case on 1934 export, and an increased bounty this season (the announced bounty is 2/- per case), together with the adoption of the five-year plan recommended by the Federal Conference.

### Office-Bearers.

The election of officers resulted as follows: President, Mr. J. J. Heane (unopposed); board, Messrs. A. U. Tonking, M.L.A. (Orange), E. Ray (Bathurst), J. Hetherington (Leeton), T. A. Tester (Young), A. E. Herring (Batlow), K. H. Todd (Griffith), P. W. James (Dural), T. A. Haerse (Liverpool), F. B. Mackenzie (Kurrajong), H. C. Matheson (Grose Wold), S. C. Martyn (Armidale), A. J. Taylor (Singleton), H. L. Anthony (Murwillumbah), A. S. Brown (Ourimbah), A. E. Lillicrapp (Mangrove Mountain); general secretary, E. E. Herrod.

### N.S.W. BANANAS.

**Marketing Board Favored.**

On a poll being taken as to Banana growers constituting a marketing board under the Primary Products Marketing Act, it was decided in the affirmative.

# Pollination of Pears ★ Results of 1934 Tests

(By E. E. Pescott, F.L.S., Senior Horticultural Instructor; and F. J. Greatorex, Orchard Supervisor, in the Journal of Agriculture, Victoria.)

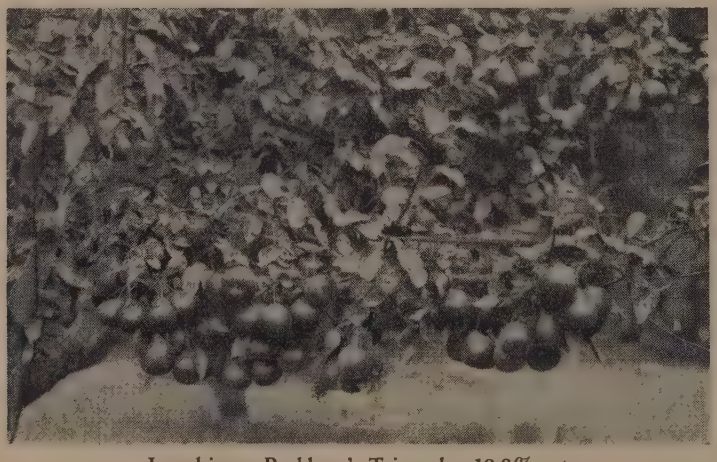
———:§:———

THE POLLINATION WORK carried out by the Horticultural Division of the Department of Agriculture during 1934 included the study of the Josephine, Doyenne du Comice, and Beurre d'Anjou Pears. The "branch unit" method of investigation, recently described by A. G. Strickland, M.Agr. Sc., was continued.

The above varieties of Pears were selected owing to the usual difficulties presented in the low production, and also owing to the absence of definite pollination knowledge of these varieties.

### Josephine.

Two rows of Josephine were selected for the experiment, the trees growing in the orchard of Mr. W. Lipscombe, of Croydon. On the west side of these Pears were two rows of Winter Cole, and adjacent to these was a strong row of Pinus insignis trees. On the east side of the Josephines were three rows of Keiffer Hybrid Pears.



Josephine x Packham's Triumph—19.8% set.

Pollen of Winter Cole, W. Nelis, Black Achan, and Packham's Triumph Pears was collected for the work. Owing to the wet season, irregular supplies only of pollen could be obtained, and where old pollen was used, even if only a week or two old, the results were much poorer than was the case with freshly collected material.

In addition to pollinising the blossoms with pollen of the varieties Comice and B. d'Anjou, branches were left "open," so that the usual insect visitors could effect the transfer of pollen, and "bagged" branches were pollinised with Josephine pollen, that is, they were "selfed."

In some cases the pollen was applied three times, and in others twice only, owing to the scarcity of material. The value of three applications was indicated in the case of Josephine pollinated with W. Nelis pollen, where a set of 20.7 per cent. was obtained, while two applications gave a set of 16.7 per cent. only. Further, three applications of Winter Cole pollen resulted in a 16.6 per cent. set, and two applications in a set of 11.5 per cent.

A comparison of these results shows that Packham's and Nelis are satisfactory pollinisers for Josephine. This bears out the generally recognised opinion of fruitgrowers. Black Achan is a very free bloomer, producing a good supply of apparently first-class pollen. But the results indicate that this Pear is quite unsuitable as a polleniser for Josephine, especially with regard to the paucity of its seed production.

Josephine x Black Achan—3.1% set.

The seed production, as a result of using Packham's and Nelis pollen, is disappointing, especially in view of the free production of fruit. In only two fruits were nine seeds collected, while in a number, two and three seeds only were carried.

The counts and results are set out in Table I.

That Packham's is a satisfactory polliniser for Josephine has been demonstrated recently in the orchard of Mr. P. Val Kerr, of Tyabb. Over a period of eight years, four trees of Josephine gave a total yield of ten bushels, and during five individual years the trees carried no crop. In the eighth year, one tree was cut back, and worked over to Packham's. The result was immediately successful. During the succeeding thirteen years the three trees yielded a total of 203 bushels, an average of over five bushels per tree, as compared with an average of 0.3 bushels per tree during the pre-pollination period. This record of five bushels per tree would have been increased had the trees borne a normal crop over the whole period, but during the year of the thrips attack,

Josephine x Winter Nelis—19.4% set.

**Table I.—Pollination of Josephine Pears.**

| Josephine Crossed with— | No. of Fruit Buds. | Approximate No. of Flowers. | 1st Fruit Count, Nov. 5. | 2nd Fruit Count, Dec. 7. | 3rd Fruit Count, Mar. 14. | Per Cent. Fruit Set | No. of Seeds. | Average Seed Content |
|---|---|---|---|---|---|---|---|---|
| | | | | | | % | | % |
| Packham's Triumph | 241 | 1,928 | 659 | 387 | 382 | 19.8 | 1,737 | 4.5 |
| Winter Nelis | 239 | 1,912 | 661 | 360 | 359 | 19.4 | 1,542 | 4.2 |
| Winter Cole | 244 | 1,952 | 564 | 268 | 263 | 13.4 | 1,048 | 3.9 |
| Black Achan | 269 | 2,152 | 245 | 69 | 68 | 3.1 | 86 | 1.1 |
| Open | 237 | 1,896 | 271 | 167 | 150 | 7.9 | 384 | 2.5 |
| Selfed | 218 | 1,744 | 86 | 31 | 30 | 1.7 | 29 | 0.9 |

NOTE.—The final count was made on March 14, 1935: there was an average of eight blossoms to the fruit bud: there were eight branches for each polliniser.

Anjou x Keiffer—7.1% set.

they carried two bushels only. Omitting this year, the average yield would be 5.6 bushels per tree. These figures represent packed bushel cases, no allowance being made for drops, rejects, or any other oddments.

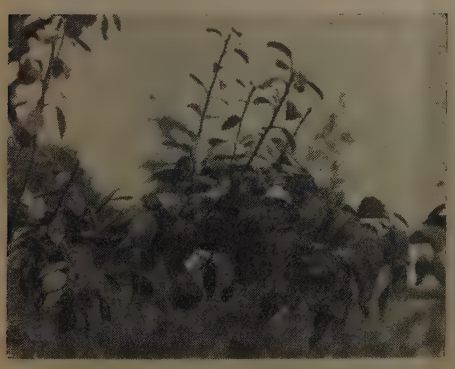
**Beurre d'Anjou.**

One row of this variety growing in the orchard of Mr. A. Tully, Doncaster, was selected for the test. On the west side of this row were placed three rows of Howell, and then two rows of Keiffer's. On the east side were three rows of B. Bosc. A strong plantation of Pinus insignis is growing to the east and north of this row, and at right angles to it.

Pollen of Howell, Keiffer's Hybrid, Harrington, and Monchallard Pears was selected for the work. Owing to the short supply of pollen, and the rainy season, the latter two varieties were used for one crossing only. Howell pollen was used once, and twice; and Keiffer pollen was used twice and three times. Early Howell blooms only are available to catch the late blooms of d'Anjou, hence only one crossing was possible.

The counts and results of this trial are set out in Table II.

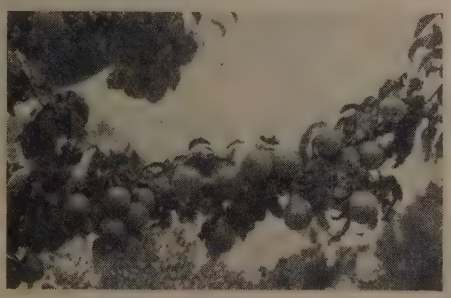
It is interesting to note that in this work the highest result has been obtained on the "open" branches. This is due to the fact that the adjacent orchard rows are composed of Keiffer and Howell, the two varieties which gave relatively high results in the cross pollination work.



Josephine, selfed—1.7% set.

**It is thus shown that the actual orchard experience bears out the experimental work.**

Monchallard pollen was used because of its synchronous blooming; but it is recognised generally as being valuable to Keiffer for fruit setting. This applies to Harrington also.



Anjou x Howell—6.4% set.

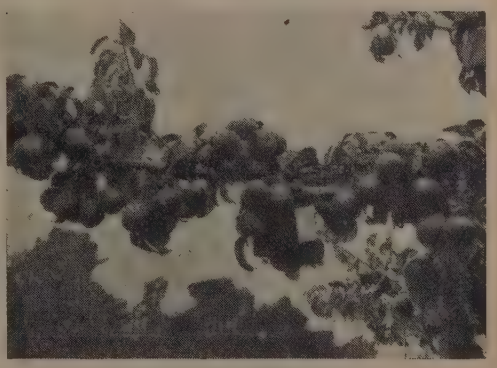
**Doyenne du Comice.**

This is one of the most popular varieties of Pears, being both luscious and well flavored. It is attractive to the orchardist on account of the high prices regularly received on the London market. It has been a very popular Pear in England for nearly a century. It is regarded there as being a "certain cropper, of beautiful growth, and surpassing flavor." Unfortunately, in Australia, it is quite the reverse of a "certain cropper," and has become a problem to orchardists, who desire to grow it because of its popularity.

There are several problems in regard to the culture of this Pear; and it is by no means certain that the lack of a suitable polliniser is the only factor influencing its low cropping performances. For instance,

**the anthers burst**

before the flower buds open, so that much of the pollen may be lost. Further, the petals are very easily damaged, and the flower stem is exceedingly weak. It can thus be seen that a severe windstorm during the blossom period would cause a very heavy loss. This actually happened in the present experiment on September 27, when the trees were in full bloom, and much blossom was lost or injured.



Anjou, selfed—0.7% set.

**Table II.—Pollination of Beurre d'Anjou Pears.**

| Beurre d'Anjou Crossed with— | No. of Fruit Buds. | Approximate No. of Flowers. | 1st Fruit Count, Oct. 22. | 2nd Fruit Count, Dec. 7. | 3rd Fruit Count, Feb. 3. | Per Cent. Fruit Set | No. of Seeds. | Average Seed Content |
|---|---|---|---|---|---|---|---|---|
| | | | | | | % | | % |
| Keiffer's Hybrid | 317 | 2,694 | 281 | 189 | 189 | 7.1 | 1,291 | 6.7 |
| Howell | 288 | 2,448 | 228 | 169 | 158 | 6.4 | 768 | 4.8 |
| Monchallard | 87 | 737 | 59 | 46 | 40 | 5.4 | 253 | 6.3 |
| Harrington | 312 | 2,654 | 236 | 127 | 113 | 4.2 | 592 | 5.2 |
| Open | 334 | 2,839 | 345 | 233 | 215 | 7.5 | 1,291 | 6.0 |
| Selfed | 367 | 3,119 | 101 | 34 | 24 | 0.7 | 7 | 0.3 |

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Anjou, open—7.5% set.

In the orchard of Mr. W. Lipscombe, of Coydon, there is a group of 104 Comice Pears, which were planted in 1915. Since 1930, the trees have not averaged half a bushel per tree. On the west side of these trees are two rows of Winter Cole Pears, followed by two rows of Williams. On the east side are two rows of Bosc.

It was decided to test the pollen of Williams' Bon Chretien, Winter Nelis, Winter Cole and Josephine, twelve trees being selected, with four branches on each, including the "open" and "selfed" branches. Two and three hand pollinations were given, according to the supply of pollen available, and the counts are set out in Table III.

A comparison of the figures obtained for seed content indicates that Comice carried more seeds than the other two varieties tested this year.

It would seem that two suitable pollinisers would be Josephine and Williams', but these are the results of one year's work only, and must not be taken as final. This is important, in view of the fact that it is only possible to use the early flowers of the Williams' to pollinate the late blooms of Comice. Thus a result may prove satisfactory from an experimental standpoint, but not from a practical one.

It is a general practice to interplant Nelis with this variety for pollination purposes, and growers usually have relied upon this cross to give results. In California, Tufts and Philp record under coastal conditions a total set of 29.9 per cent. as a result of crossing Comice with Nelis, as compared with a normal set of 4 per cent. But a result of 3.5 per cent. this season, using this cross, is not altogether conclusive, and further experiments are required before a satisfactory conclusion can be reached.

In view of the possibility that the low cropping character of this variety is due to more than one factor, three other phases are being studied in Mr. Lipscombe's orchard. Two

**methods of cincturing**

are being tested, one by cutting out a thin ring of bark on several branches, and another by twitching a wire around other branches to cause a check in the sap flow. In addition, several trees have been fastened to wires, so that the branches are trained to grow in a horizontal direction in the same way that Keiffer usually is grown. As yet, no records of these tests are available.

Messrs. Lipscombe, Tully and Kerr are thanked for their co-operation in this work.

Doyenne du Comice Pears.

**Table III.—Pollination of Doyenne Du Comice Pears.**

| Doyenne du Comice Crossed With— | No. of Fruit Buds. | Approximate No. of Flowers. | 1st Fruit Count, Nov. 5. | 2nd Fruit Count. Dec. 7. | 3rd Fruit Count. Feb. 27. | Per Cent. Fruit Set | No. of Seeds. | Average Seed Content |
|---|---|---|---|---|---|---|---|---|
| | | | | | | % | | % |
| Josephine . . . | 231 | 1,617 | 101 | 84 | 81 | 5.0 | 495 | 6.1 |
| Williams' Bon Chretien . . . | 231 | 1,617 | 90 | 67 | 66 | 4.08 | 392 | 5.9 |
| Winter Nelis . . | 244 | 1,708 | 87 | 68 | 61 | 3.5 | 358 | 5.8 |
| Winter Cole . . . | 212 | 1,484 | 75 | 49 | 47 | 3.1 | 308 | 6.5 |
| Open . . . . . | 249 | 1,743 | 87 | 53 | 53 | 3.04 | 314 | 5.9 |
| Selfed . . . . | 199 | 1,393 | 18 | 8 | 6 | 0.4 | 15 | 2.5 |

(1) Comice x Josephine—5% set;
(2) Comice x Williams' Bon Chretien—4.08% set;
(3) Comice x Winter Nelis—3.5% set;
(4) Comice, open—3.04% set.

Illustrations by courtesy Journal of Agriculture, Victoria.

# The Thrips Menace

## No Appreciable Rise in Autumn, but Wet Weather Favors Breeding Places.

### Further Report Available Next Month.

### Tests With Selected Insecticides.

**The importance of the research work undertaken under the auspices of the Thrips Investigation League cannot be over-estimated.**

SIR DAVID RIVETT, Chief Executive Officer, Council for Scientific and Industrial Research, writes as follows on June 10:—

I think it would be well for me to let you know just briefly what Dr. Davidson proposes in connection with the thrips work during the coming spring.

As this is the final year of the research programme on the Apple thrips problem, the work next spring will be concentrated on making orchard tests in South Australia and Victoria with selected insecticides which have given promising control results in laboratory tests. The selection and preparation of these insecticides will be centred at the Waite Institute.

Tests will be carried out in suitable orchards near Melbourne, arrangements being made in June by Mr. Andrewartha.

At the end of June, Mr. and Mrs. Andrewartha will be transferred from Melbourne to the Waite Institute, so that the necessary details connected with the field programme may be arranged, including orchard tests near Adelaide. During this time the routine work on the recording of thrips numbers in Victoria will be carried on by the laboratory assistant for the thrips work at the School of Agriculture in the Melbourne University. The daily counts will be sent weekly to Adelaide.

In August Mr. Andrewartha will visit Melbourne (the date depending on the spring weather) in order to complete arrangements for the field insecticide tests. He will then return to Adelaide and make further visits to Victoria when desirable. Mrs. Andrewartha will be in Melbourne in the spring, if necessary, and will remain there for a time to supervise the work.

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Dr. J. Davidson, Chief Entomologist, Waite Research Institute, Adelaide, who is in charge of the thrips investigation, under the auspices of the Thrips Investigation League, advises as follows on June 8:—

"The daily records of the Apple thrips (Thrips imaginis Bagnall) in flowers in the Adelaide and Melbourne districts do not show any appreciable autumn rise in numbers.

"Owing to the generally distributed autumn rains this year, there are more flowers affording breeding places for thrips. The population is therefore more widely distributed than is the case in a dry autumn.

"The increase in numbers of the thrips in spring will depend upon the survival rate of the present population during the winter months and the date of the setting in of warm, favorable spring weather.

"It will probably be possible to make a further statement on the position in August."

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# Big Developments in Passionfruit Culture

**Export Trade in Pulp and Juices.**

**200 Acres Now Planted at Red Hill, Vic. Area will be 400 acres this Year: Expected Yield, 500,000 cases.**

THE "PASSIFLORA" PASSIONFRUIT Plantations, Red Hill, Victoria, were officially opened on June 20 by the Acting Prime Minister, Dr. Earle Page, in the presence of a large audience. More than 50,000 vines have already been planted on 200 acres, and it is expected that the planted area will shortly be doubled.

In introducing the Minister, the managing director, Mr. Dunne, stated that the enterprise was on a sound financial footing. Enquiries for Passionfruit products had been received from many countries. The export trade in Passionfruit pulp and cordials was being specialised.

Dr. Page emphasised the value of the export trade. He understood that there were only 1,600 acres under Passionfruit in Australia, thus the Red Hill district contained 12½ per cent. of the total.

Speeches were also made by the Minister for Public Works (Mr. Goudie), the Chairman of the Railway Commissioners (Mr. H. W. Clapp), Mr. J. V. Fairbairn, M.H.R., and Mr. Kirton, M.L.A.

The visitors inspected the factory which was erected at a cost of over £7,000. The factory is complete with elevators, a Harvey grader, machinery for pulp juice extraction, equipment for bottling and labelling, and a laboratory for experimental work. The total cash expended on the enterprise is estimated at £100,000. It is estimated that the fruit yield, when the plantation is in full bearing, will be half a million cases.

An inspection of the vines in company with the plantation manager (Mr. C. H. Harrison), revealed the Passionfruit vines growing well. Seedlings planted fifteen months ago were now yielding 1½ cases per vine. Hardwood trellises and wire supports have been erected throughout. The rows are 12 ft. apart with 15 ft. between each vine.

Throughout the area there is a network of underground drains.

This huge Passionfruit enterprise has been developed on a scheme of finance very similar to that of N.Z. Forests, with shareholders and debenture holders.

Passionfruit growers and others throughout the Commonwealth will wish the company all success. The hope of the enterprise is in the export trade and sales of pulp to local pastrycooks, confectioners, etc., as any material addition to the fresh fruit on local markets is liable to cause depression of prices.

It is understood that the company has large orders in hand for Passionfruit pulp for local trade and for export.

The company bases its production figures at a minimum of 300 cases per acre at an average of 7/6 per case, and the life of vines at 20 years.

**Portion of 200-acre Passionfruit Plantation at Red Hill, Vic. (Additional 200 acres being planted).**

# Almond Pollination Investigations

## Tests with Varieties to see which are Compatible

**Crops of Brande's Jordan Increased Fourfold by Correct Pollination.**

(By H. Wenholz, Director of Plant Breeding, N.S.W. Dept. of Agriculture.

AN EXTENSION of the areas devoted to Almonds appears to be justified by their growing consumption in Australia. A more exact knowledge of their pollination requirements is necessary to make new plantings efficient.

This work with Almonds has been assigned to Mr. Poggendorff, Assistant Plant Breeder, at the Yanco (N.S.W.) Experiment Farm.

Summarising the data from the work on the three leading varieties of Almonds, Mr. Poggendorff concludes as follows:—

"**Brandes' Jordan.** The first week or so of blossoming is not covered by that of any other commercial variety, but it has a higher self fertility than that of any other variety. **The setting of fruit is, however, capable of being increased nearly three or fourfold by cross pollination with Early Papershell or Riverside Peerless,** but not by Large Papershell, which does not pollinate it at all successfully.

"**I.X.L.** This variety has been found to be but little self fruitful, and its set has been increased very considerably by Hatch's Nonpariel, which blossoms synchronously with it over all but its early blossoming period. Investigations have not yet been completed, but Brandes' Jordan is thought to be satisfactory.

"**Hatch's Nonpariel.** This Almond is also nearly self sterile, and from the data so far obtained, I.X.L. is a satisfactory polleniser."

Mr. Poggendorff states there is considerable doubt regarding the true identity of many commercial plantings, and that, naturally, any attempt to apply the results of these findings for particular varieties to others masquerading under the same names is likely to prove disappointing. A systematic examination and review of commercial varieties appears to be essential.

It is proposed to continue these pollination investigations with Almonds and to raise seedlings of the resultant crossed fruits in the hope of producing—

1. An early flowering commercial variety which will serve as a polliniser for Brandes' Jordan during its early blossoming period;
2. Varieties of better kernel size, thinness of shell, yield and quality than the present commercial standards.

# CODLIN MOTH CONTROL

## Experiments show no success with Non-arsenicals. Non-lead Arsenicals satisfactory, especially with Oil.

**New Method of Spray Residue Removal. Latest Advice from U.S.A.**

DETAILS OF PEST CONTROL methods from the Pacific North-West of U.S.A. is always of interest to growers in Australia and New Zealand, as cultural conditions are in many instances very similar.

In the 44th annual report of the State Agricultural Experiment Station, Pullman, Wash., many interesting items are recorded.

In passing, we would like to congratulate the producers in the State of Washington, on having such an efficient Agricultural Experiment Station.

Regarding

**codlin moth control,**

a report is issued by the Division of Chemistry stating that in the study of the effectiveness of **several non-lead arsenicals.**

The toxicity and ovicidal value of a number of organic compounds were studied, zinc arsenate with herring oil gave codlin moth control comparable to lead arsenate alone, while zinc arsenite gave better control. Manganese arsenate did not give as good control as lead arsenate alone. Zinc sulphate-calcium, arsenate-calcium hydrate and the aluminium sulphate-calcium arsenate-calcium hydrate mixtures were apparently as effective as lead arsenate alone. It is strongly advised that these materials should not be used commercially until more extensive experimental work is available.

* * *

**Summer Oil Sprays.**

The Division of Entomology reports that investigations with summer oil sprays of medium viscosity and high sulfonation tests were continued, especially for codlin moth control. In an attempt to substitute kerosene for summer oil, the latter proved more effective than the former when used in combination with lead arsenate.

Tests were made with various combinations of oleic acid, sardine, herring, vegetable and other oils.

**Herring Oil:** The use of two pounds of lead arsenate with one pint of herring oil resulted in a degree of control for codlin moth somewhat better than when three pounds of lead arsenate were used alone. Herring oil furnished for spray purposes in the Wenatchee Valley in 1934, contained less than the usual amount of free fatty acids. Evidence has been accumulated that free fatty acids up to 5 per cent. are desirable in the maintenance of a smooth cover on the fruit with a herring oil-lead arsenate combination.

**Vegetable Oils:** The use of lead arsenate two to 100, with soya bean oil, one quart, gave results apparently slightly superior to lead arsenate three to 100 without oil and no evident injury resulted.

**No Success With Non-Arsenicals.**

Non-arsenicals for codlin moth control were tested by Messrs. R. L. Webster and James Marshall (Division of Entomology), Investigations on **pyrethrum** extracts were continued on a limited scale, but again it was found practically impossible to maintain any degree of protection from codlin moth attack even when as many as ten applications were made during the season.

**Non-Lead Arsenicals.**

For the second successive season **calcium arsenate** has been used with safety


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to foliage and fruit and with certain combinations, even without the use of mineral oil again has given results in codlin moth control comparable to those obtained from 3 lbs. of lead arsenate used alone.

**This is understood to be the first successful effort in this connection in the Pacific North-West, for all other insecticides which were better than lead arsenate alone have been used in combination with mineral oils.**

Even 5 lbs. of calcium arsenate per 100 gallons has not given rise to arsenical injury in the most suitable combinations.

Calcium arsenate used with one half per cent. of summer oil (standard No. 6) was more effective than lead arsenate alone, but the spray deposit was greater.

**Spray Residue Problem.**

In a technical bulletin on this subject, evidence of the presence of an organic lead compound of sprayed fruit is presented. **This is formed by the combination of lead with one of the constituents of Apple wax.** This information suggests an additional method of approaching fruit cleaning problems and a modification of cleaning methods. A large amount of additional data has been accumulated on various phases of the fruit cleaning problem.

Regarding

**spray residue removal**

methods, the effects of different spray programmes upon the problem of cleaning of the fruit was studied. Experiments were conducted to determine the ability of the industry to clean the fruit sprayed with the new and promising spray schedules with the washing equipment generally in use. **As a result of previous investigations tandem and double process washing machines are being used generally this season.**

Sodium silicate is being used as one of the major washing solutions after the development of wax on the fruit.

## SAN JOSE SCALE.

**Spray With Miscible Oil.**

For San Jose scale the control recommended is to spray the trees with miscible oil at the rate of 1 gallon to 20 gallons of water. The trees should be pruned before spraying, and the prunings burnt.

Used at full winter strength, lime-sulphur also gives fair control, but is not recommended in preference to miscible oil, except on those varieties of fruit trees where it is desirable to use it for the control of fungous diseases.

Where the infested trees have been marked during the picking of the fruit and "spot-spraying" is practised, the adjacent trees should also be sprayed.—N.S.W. Agricultural Notes.

## CODLIN MOTH CONTROL.

The Australian Council of Agriculture has received a report from its standing committee on agriculture detailing the problems of codlin moth control and arsenical residue on fruit. Efforts to control codlin moth without the use of sprays are being continued, but it is generally felt that sprays give the greatest promise of success.

Leaving fluorine compounds out of account, the most promising substitute for arsenical sprays are oil emulsions (particulary white oils and nicotine), which are often used in combination. In many experiments these substitutions are used only for late sprays, lead arsenate being used in the earlier ones. A large number of other insecticides are being tried out.

**Co-ordinating Committee.** It was decided that the C.S.I.R. should establish a representative committee from all the States to survey the whole position.

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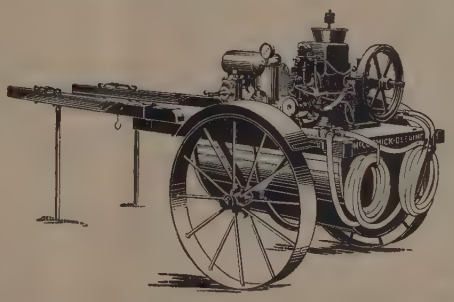

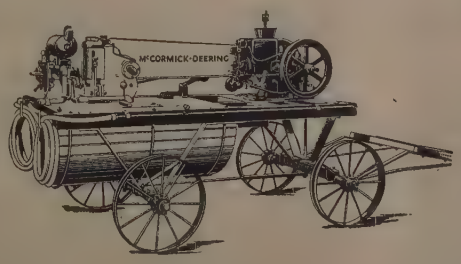


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# Cold Storage In Australasia

## Scientific Research.

## Experiments in Storage.

**C.S.I.R. Centralising in Sydney.**

FOLLOWING the recent Agricultural Conference at Canberra, it has been decided that the research in food preservation, which the Council for Scientific and Industrial Research has been doing for some time, shall be centralised in Sydney in a specially equipped laboratory.

For three years, Dr. S. A. Trout, of the council, and Mr. G. B. Tindale, cool storage officer of the Victorian Department of Agriculture, have collaborated in research work on the storage of fruit, and have given much information on this subject of great importance to the industry. Their energies were directed to ascertining the best stage at which fruit should be picked, the best temperature at which to store it, the maximum length of time it will live in cool storage and still be marketable in good condition within a reasonable time after being put into distribution, and other aspects of storage applicable to Victorian conditions.

**"Breathing" Tests.**

Often fruit cool-stored on the trip from Australia has been praised for its condition on arrival in England. Soon after reports have shown that it had become rotten. It had been kept too long in cool store.

Experiments at various fixed temperatures have proved, Dr. Trout and Mr. Tindale claim, that the efficient storage temperature for most fruits is just above freezing point, 30 deg. Fahrenheit. But that discovery was not enough.

So the "breathing" tests began. The respiration experiments at Victoria Dock, it is believed, are the only ones of their kind in Australia. In odd corners of rooms maintained at fixed temperatures—some to within one-fifth of a degree—are puzzling mazes of pipes and tubes.

An Apple, a Pear, an Orange, perhaps a solitary Grape, has its own little glass compartment. Air, from which carbon dioxide has been removed, is drawn over them.

The carbon dioxide increases for a period to a point in its life—the climacteric — then decreases until decomposition sets in. When decomposition begins the life of the fruit in cool store has ended.

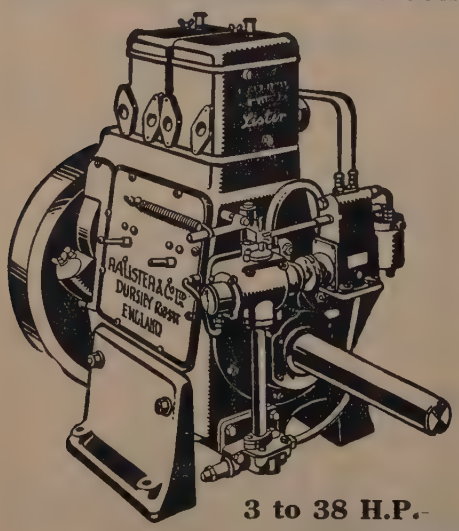
So these two enthusiastic scientists have co-operated quietly and unobtrusively in an attempt to determine better storage results and, in one way, it is to be regretted that Dr. Trout will now probably be transferred to Sydney, when the intimate team-work may be broken up. If, however, facilities are given, better than the "home-made" appliances which they have evolved at the docks, it is conceivable that even better results may be achieved, and the Council give even better service to the fruit industry than it has been privileged to do up to date.

### WASTAGE OF VALENCIA ORANGES IN STORAGE.

For a number of years the N.S.W. Department of Agriculture has been conducting experiments in an endeavour to discover a treatment which will control the heavy wastage losses which periodically occur in stored Valencia Oranges. A report is now to hand giving the results of an experiment designed to determine the relative efficiency of a number of combinations of sterilisers carried out at Niagara Park, and in which a commercial processing plant was used.

Of 320 cases of fruit used in the experiment, a portion (including each treatment) was put into cold storage for eight weeks, and the remainder into ordinary storage for five weeks, and observations were made of the amounts of the different types of decays (penicillium decay, stem-end rot and stem-end browning or "sore-eye") at the end of these periods.

Treatment with a proprietary alkaline cleansing agent, 1 per cent. concentration, at 110 degs. Fahr., for 2 minutes, followed by immersion in a 3 per cent. borax solution at 110 degs. Fahr. for 5 minutes, consistently gave the best results for all types of decay, while definite reduction of infection due to stem-

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end rot was obtained by the use of several of the treatments.

Three borax treatments used gave appreciable and significant control of sore-eye development, the greatest reduction being in the vicinity of 50 per cent. Fruit held for five weeks in ordinary storage showed no development of sore-eye, whereas strictly comparable fruit held in cold storage at 40 degs. Fahr. for eight weeks showed an average infection of 19.4 per cent.—N.S.W. Agricultural Gazette.


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**PEARS**—30 acres, Williams, W. Cole, Packhams, Beurre Bosc, Keiffer, Doyenne du Comice, Josephine, etc.

**LEMONS**—½ acre, Lisbons (8 to 12 cases per year per tree).

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# Frost Prevention by Orchard Heating

## BRIQUETTE AND BUCKET BURNERS MOST SUCCESSFUL

### Growers Must Prepare in Advance

(Radio Lecture by R. L. Prest, Instructor in Fruit Culture, Queensland Department of Agriculture.)

DESTRUCTIVE FROSTS are not nearly so frequent in Queensland as in some other States. Nevertheless, serious losses are occasioned at times to early fruiting varieties by late frosts, and though, generally, the expense attached to orchard heating is too high, it would at times be well worth the expense of occasional heating where late frosts periodically occur.

Frost occurs when the temperature falls below 32 deg. F. What is known as a white frost is the accompaniment of a deposit of white ice crystals on exposed surfaces. A black frost is characterised by the absence of white crystals, and is usually regarded as being the more severe.

Various methods have been tried to prevent frost injury. The old method (now considered more or less obsolete) was the causation of dense smoke overlying the area to be protected. This was known as smudging. The modern method is to heat the cool stratum of air immediately overlying the orchard, so that the temperature does not fall below 32 deg. F.

There is an atmospheric "ceiling" a few feet above ground.

Supposing then, that the temperature at ground level was 32 degrees, and it was desired to raise the temperature by two or three degrees, it would probably be necessary only to heat a volume of air a few feet high.

For creating heat various fuels have been used, such as wood, coal, coke, kerosene, crude oil, etc. Of these methods, crude oil, burned in specially constructed heaters, is probably the most efficient. Among the advantages is that in suitable burners many fires can be set going in a short space of time. Many small fires provide a better protection than a few big ones.

In Australia two types of heaters are satisfactory. The coke, coal briquettes or charcoal heaters, which are cheaply constructed of heavy-gauge iron, consisting of two parts, the cylinder with grate, which contains the fuel, and the top, which fits on the cylinder, comprising a draught cone, stack, and damper. Each heater is capable of holding approximately 20 lb. of fuel, which burns from four to five hours at a cost of 4½d. to 5d. per heater, varying according to the cost per ton. From 45 to 50 heaters of this type are required per acre.

**Bucket heaters** of all kinds, burning low-grade oils, have been used with unqualified success. Useful burners may be made from two-gallon oil or paint drums, usually obtainable from hardware dealers. Dampers, which may be circular or triangular, should be made to fit over the tops of the burners, so that burning may not be excessive; the wick, which can be made from any old rag or cloth, may be hung on the damper. Lids should be provided, so that the heaters can be extinguished at will. Lighting is accomplished by the use of torches which drip burning fuel into the heaters.

The Commonwealth Meteorological Bureau will supply data showing the degree of cold which will probably be endured by different fruits up to thirty minutes.

The most susceptible period for frost damage is usually after the petals have fallen, and the fruit is set. The lowest temperatures usually occur between midnight and 5 a.m. Alarm thermometers are placed where they will register orchard temperatures. The type generally recommended has been the "U" tube maximum and minimum thermometer connected with an electric bell system, so arranged that an electric current passes through the mercury column, completing the circuit, and thus ringing the bell. This type does not always prove reliable, and in order to be on the safe side, a type of alarm ringing the bell when the circuit is broken should be used.

The essential of success is sufficient heat at the proper time. To provide the necessary heat, the grower must be fully prepared at all times during the period of possible danger, and must understand how to handle the firing. An excellent precautionary practice is the lighting of a few heaters after they are in the field and supposedly ready for emergency use. Burn new heaters an hour or two so as to get them into condition to light readily when required.

The heaters should be placed so as to give a uniform distribution of heat. **It is advisable to have a row of heaters,**


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one to each tree, outside of the orchard on the side from which the air is drifting. The orchard heating problem consists, in part, of replacing the heat lost to the drifting air, but mainly in making up losses from radiation. As radiation occurs uniformly throughout the orchard, the ideal manner of lighting the heaters would be to leave no unlighted rows. **It is better to have a heater to every other tree in every row than to place them one to a tree in alternate rows.** Convenience and speed in lighting and ease in filling must, however, be taken into consideration in placing the heaters.


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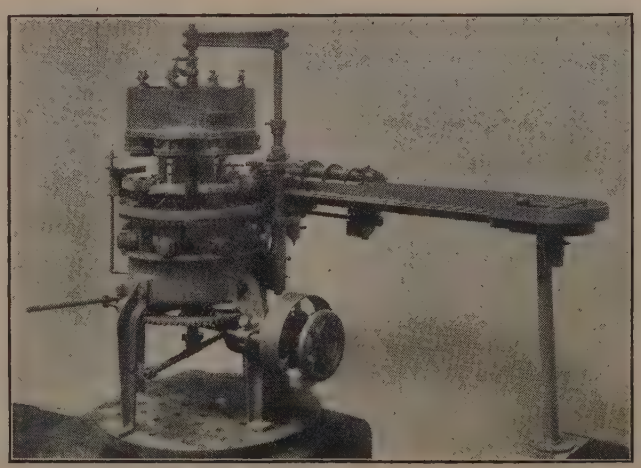

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# SOUTH AUSTRALIA

## Mid-Murray Notes

**Validity of Dried Fruits Acts: Control has Benefited the Industry: Agricultural Bureau Conference: Important Address by A. G. Strickland on "Fruit Setting": More Scientific Research Needed: Interesting History of the Moorook "Village Settlement."**

(By Our River Murray Correspondent.)

THE DRIED FRUITS INDUSTRY is having a good deal of publicity these days, owing to the legal action brought about to test the legality of the establishment of State Export Control Boards.

Since the establishment of these Boards, about ten years ago, all growers have enjoyed an equal share of the sheltered markets of Australia, and through the efforts of the Australian Dried Fruits' Association, backed up by the various Boards now in existence, it has been possible to bring about reciprocal trade treaties with Canada and New Zealand, which markets have become more or less of a sheltered nature, also.

The bulk of the pack of dried fruit produced in Australia is sent to the United Kingdom, which meets competition from all producing countries in the world, and while our dried fruits are granted a certain amount of favor, competition is keen owing to European countries having a lower standard of living, consequently world's parity is invariably lower priced than when sold in the other Dominions.

Most of the dried fruit produced in Australia is handled through the various packing sheds and sold on consignment, and in this way every grower is directly concerned in being able to dispose of his proportion of fruit in the sheltered markets, and his due proportion in the markets where he receives world's parity. A certain amount of fruit is purchased for cash by speculative buyers who are obliged by law to export their due proportion also.

The recent High Court action brought about by a buyer of dried fruit, and in which a verdict was given against him, will now be taken to the Privy Council. This strikes a blow at the validity of control. In effect, the speculative buyer is seeking the lion's share of the sheltered markets, leaving the less remunerative markets to those who believe in the "greatest good to the greatest number."

The High Court action mentioned is a direct challenge to Section 92 of the Commonwealth Constitution, which has already caused more litigation than enough, and the sooner an amendment is made, the better it will be for the primary producer.

Since the adoption of control measures in our industry it has met with such success in orderly marketing, that the citrus and dairy industry are adopting legislation on similar lines, but until Section 92 is more clearly defined or amended, it is quite possible that a certain amount of caution will be adopted before bringing these industries under control.

In the dried fruits industry, complete control is necessary. We have experienced cut-throat marketing with numerically depressed prices in the past, but during the past ten years of control, the industry has enjoyed a stability which cannot be lightly set aside.

### Agricultural Bureau Conference

THE ANNUAL CONFERENCE of River Murray branches of the Agricultural Bureaux was held at Moorook yesterday, June 20. The chair was occupied by Mr. F. C. Petch, owing to the illness of Mr. E. W. Chaston (who was to have acted in that capacity). An address of welcome was given by Mr. J. B. Murdoch (member of Advisory Board of Agriculture). The Dept. of Agriculture was represented by Prof. Perkins, Messrs. A. G. Strickland, Chief Horticultural Instructor; H. C. Pritchard, F. R. Arndt, horticultural instructor; N. Fotheringham, manager Berri experimental orchard. The following papers were read: "The Source of Castor Oil," by N. J. Herbert (Moorook); "Ailments of Stock," F. J. Petch; "Why is the Currant Deteriorating?" (L. S. Chappel), Berri; "Irrigation and Drainage" (F. R. Arndt), Berri; "The Economic Value of Australian Birds" (S. Sanders), Moorook; "Green Manuring," (P. U. Wilksch), Berri.

The evening session was taken by Mr. A. G. Strickland, who gave an illustrated address on "Fruit Setting." In dealing with this subject, many of Mr. Strickland's slides illustrated the pollen influence of various varieties as affecting setting. **The study of pollination had been very intimately studied in England, but in Australia there was still a lot of research work necessary, said the speaker.** Certain varieties flowering at the same time had proved incompatible, and incapable of fertilising the female flower, but, taking most varieties of fruits as a whole, a fairly general rule could be applied that synchronised flowering would prove effective and induce fruitful pollination.

Such trees as the Navel Orange, Bananas and seedless varieties of vines like Sultanas, etc., are abortive, and pollination is purely mechanical; they do not, therefore, depend on pollination for fertilisation of flowers. A great number of Pears, Apples and Cherries, Figs, etc., to a varying extent are unable to produce fruit without the pollen from other varieties of the same species.

Slides showing experiments on the effect of flowers enclosed in a muslin bag to prevent pollination, as compared with branches properly pollinised, gave an outstanding demonstration of what can be achieved by a proper understanding of this branch of horticulture. In some cases unpollinised branches showed no fruits whatever, while properly fertilised flowers produced a heavy crop. Accurate tallies of blooming dates had been kept at the Blackwood experimental orchard for a number of years, and while the actual dates might differ from one district to another, the same relationship between flowering dates occur practically everywhere.

In some districts Pears will set without the laborious preparation for pollination, but there may be an advantage of better and more

**consistent cropping of fruits**

if provision were made for pollination.

Williams Pears in the southern districts of Victoria will not set satisfactorily without pollination, whereas on the Goulburn Valley they will set quite satisfactorily.

When asked

**what varieties blossom**

to coincide with Williams, Mr. Strickland said that Beurre Bosc, Josephine and Winter Nelis are good varieties to use.

Asked about Plums, the speaker said that Wickson and Satsuma blossomed together, and Wickson and Climax also go together. Japanese Plums will not, as a general rule, fertilise European varieties. Japanese varieties must have another Japanese variety to be thoroughly effective. One American record, however, had been successful in fertilising a Japanese Plum with a European variety, but this is quite exceptional.

Asked about Almonds, the speaker said that IXL and Brandes' Jordan and Californian Papershell flowered together. Mr. Fotheringham said that at the experimental orchard at Berri the IXL and White Nonpariel flower together. Asked whether irrigation had any effect on the setting of Peaches, Mr. Strickland said that what is known as the June drop in America was intimately bound up with the supply of moisture in the

soil; a dry soil at flowering time definitely affected setting. Heavy rain also affected setting, but whether the incidence of an irrigation at setting time affected it detrimentally was open to some question.

A vote of thanks was proposed by Mr. Liddicoat to all those who contributed papers to the conference, and seconded by Mr. J. J. Odgers. Special thanks was given to all departmental officers who attended. Professor Perkins responded for the Department of Agriculture, and said that in all the years he had attended conferences this one showed a higher tone in the quality of papers read than usual, and in particular he would like to commend Mr. F. Arndt on the paper on Irrigation and Drainage.

At the request of members present this paper would be printed by the department, and be available in bulletin form.

Moorook, where the conference was held, is a relic of the old village settlement days. South Australia's first attempt at Communism took shape in several small irrigation settlements along the river, of which Moorook was one. About 100 acres of land was originally set aside for irrigation purposes, which has existed, with many ups and downs, until about 1920, when the South Australian Government commenced the repatriation of soldier settlers. The settlement was then enlarged to about 500 acres, upon which there are now 50 families living happily. Only one of the original village settlers survives—Mr. John Aird—who is looked upon as the father of the settlement, and holds the esteem of all. The production of fruit last season in this settlement was 140 tons Lexias, 190 tons Currants, 220 tons Sultanas, 40 tons of Apricots, besides about 15,000 cases of Oranges. These fruits are all handled by the Moorook Co-operated Packers, a company which works on purely co-operative lines under the able management of the secretary, Mr. Thomas, who is a returned soldier. Moorook is a picturesque little settlement of contented growers, who all work in harmony with the genuine interest of the community as a whole.—"Nemo."

## South Australian Fruit Marketing Association.

The monthly meeting of the executive of the S.A.F.M.A. was held at Adelaide on May 31. There were present Messrs. H. J. Bishop (president), H. N. Wicks, A. G. Strickland, R. A. Cramond, A. R. Willsmore, F. B. James, D. Norsworthy, J. S. Hammat, R. O. Knappstein, A. O. Peterson, R. S. McDougall, J. B. Randell, E. S. Mason, R. G. Hannaford, S. M. James, M. Vickers, and the secretary.

**Season's Shipments:** The secretary reported that shipments for the season were 250,000 cases of Apples to U.K. and Continent, 31,300 Pears to U.K., 3,200 cases of Apples to Colombo. Mr. Strickland advised that the figures for all ports, including the East, were 261,000 cases of Apples.

**Shipment of Pears:** It was decided to write to the O.S.R.A. pointing out that the shipment of Pears per "Themistocles" had been disastrous, the value of the fruit being altogether lost, involving the growers in a loss of £2,000. Unless suitable steamers were available growers would be compelled to discontinue shipping Williams Pears. It was considered that this shipment had received special care, and was under the best possible conditions, but the time of the voyage was too long.

**Research Sub-Committee:** Mr. Wicks reported re codlin moth. Mr. Strickland had been appointed a member of a new committee which, in conjunction with the Council for Scientific and Industrial Research, will endeavour to co-ordinate the work in the different States. The sulphate of ammonia tests carried out by members had been completed, but Mr. R. O. Knappstein had agreed to continue the tests for a further ten years, to ascertain the effect of a continuous application of sulphate of ammonia. A general discussion had also taken place in connection with spraying material, manuring experiments, green Peach aphis, etc.

## STH. AUST. RAIL FREIGHTS.

### 20 Per Cent. Reduction to Primary Producers to Continue.

As a result of improved Government finances, the South Australian Cabinet has decided that the 20 per cent. reduction in rail freights for primary producers, previously made possible by Commonwealth grants, will be continued during 1935-36, irrespective of whether the special Commonwealth grant is repeated. The concession amounts to £120,000 a year.

## PLANTING FRUIT TREES.

WHEN PLANTING FRUIT TREES in positions exposed to prevailing winds, it is advisable to have the strongest limb facing the direction of the wind. This applies with special emphasis in the planting of Peach trees.

In other situations the bud union is usually turned towards the south, where some shelter is afforded from the sun by the stem of the tree.

*In Preparing Your Bordeaux Sprays Use . . .*

# E S A BLUESTONE

**Manufactured by**

**The Electrolytic Refining and Smelting Company of Australia Limited**

**PORT KEMBLA, NEW SOUTH WALES**

*The Right Material for Plant Disease Prevention and Control*

**GUARANTEED 99% PURITY**

GRADES—Mixed Crystals, Fines, Granulated (Snow), Packed in Suitable Containers for Growers' Requirements.

*Agents for All States :* **ELDER SMITH & COMPANY LIMITED, All Capital Cities.**

BOOKLET—*"Better Yields by Spraying with E S A Bluestone" obtainable on application to Elder Smith & Company Ltd.*

# VICTORIA— Fruit Crops—Research Association and District Notes.

## Increased Horticultural Research Sought

### Growers Ask for £5,000 for at Least Five Years.

WITH THE LARGEST AREA under fruit in Australia, the State of Victoria is inadequately served in the matter of horticultural research.

The subject requiring urgent attention from scientists include root stocks, varieties, pollination, irrigation, manuring, pest control, etc.

Victoria does not possess even one Research Station or experimental orchard for deciduous fruits, yet South Australia has two (Blackwood and Berri); N.S.W. has seven. Losses by insect pests and fungus diseases in Victoria amount to £275,000 annually — apart from the loss of crop because of unsuitable root stocks, inferior strains, inadequate pollination, manuring, etc.

Some years ago the State Government purchased an area of 104 acres at Tatura, for an experimental orchard, but no money has been made available for developing it. Similarly, an experimental orchard is needed for the south, with plots under controlled conditions throughout the State.

A deputation representing all sections of the industry is to put the case to the Minister for Agriculture for increased scientific research on July 10. The sum of £5,000 for at least five years is sought.

## Victorian Fruit Crops.

### Good Bud Formation for Coming Season With Most Fruits.

IN southern Victoria, possibly owing to the wet season, free wood growth has been produced on deciduous trees, and there are indications that buds on all types of trees are well developed, and show prospects of a heavy crop.

From nurseries in one district, over 60,000 young fruit trees have been despatched to South America, the majority being Apple varieties.

A feature of the work this season is the sowing of leguminous crops for green manure. In the Geelong and Werribee districts this work is being freely proceeded with.

Southern cool stores are all well filled with fruit, some being full to capacity.

In the Harcourt district there is a good promise of Apples and Pears for next year; while there is an excellent bud formation in the Goulburn Valley.

Peaches as well have budded satisfactorily here, with the exception of Golden Queen, Thiele and Pullars, which are showing the effects of the last heavy crop.

A small percentage of the dessert crop of Grapes being held in cool stores for late distribution.

Pruning is proceeding in the northern vineyards.

In the Tresco district considerable planting on the vacant blocks is proceeding, vines being planted for both fresh and drying purposes. Sultanas are being freely planted, with a fair acreage of Waltham Cross, Gordo Blanco and Ohanez as well. The extension of planting of Boobialla as a windbreak in these areas is interesting.

In the Mildura area, citrus crops are good, and Navels are ripening well. In the Echuca-Rochester areas, the crop promises to be about 60 per cent. of last year's crop. The Valencia crop is very light.

In the Swan Hill and Murray River areas there is a good crop of Thomsons, and the quality is good.

Lemons have provided heavy consignments, and prices have been good. Mandarins, especially the Oonshi variety, are coming forward; there is a good crop of these and of the Emperor variety, for which good prices are being realised.

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**Pakenham:** In the week ended June 8, 1,200 cases of Apples for export were despatched from Pakenham railway station, making the total for the season 62,147 cases. In addition 6,626 cases have gone forward by rail for local and interstate markets.

Owing to adverse seasonal conditions, these totals are the smallest for several years.

## Southern Fruitgrowers' Association.

### Victoria Market — Spray Standards — Black Spot Experiments.

AT the executive meeting of the Southern Fruitgrowers' Association at Box Hill on June 6, Mr. W. A. Thiele (President) was in the chair: there were also present Messrs. O. White, F. G. Beet, F. C. Pyke, V. Lawford, G. F. Fankhauser and the Secretary, J. W. Aspinall.

**Victoria Market:** E. Burwood Association, wrote in favor of dispensing with Monday, Wednesday and Friday markets, contingent on the market days being Tuesday, Thursday and Saturday.

The Doncaster Association wrote urging departmental experiments for codlin moth control other than by arsenate of lead sprays, so as to avoid washing and unnecessary handling.

**Spray Standards.**

It was decided to ask the Agricultural Department to draw up a standard specification for lime-sulphur and other fungicides and insecticides used in spraying fruit trees, in order that such might be included in the Fungicide Act Amending Bill now before Parliament.

Mr. Beet said lime-sulphur was usually sold on the "Beaume" standard, but it was possible to comply with this test and still give a very low polysulphide content. Some brands were practically useless as fungicides, while others caused excessive burning, and were highly detrimental to trees and fruit.

It was also pointed out that there were no defined standards for black leaf 40, arsenate of lead and other materials used for spraying.

**Black Spot Experiments:** Regret was expressed that owing to Mr. Leber's ill-health his orchard would not be available for further experiments. It was decided to pay £90 compensation to Mr. Leber and £5 honorarium to the Secretary, Mr. W. A. Thiele kindly offered portion of his orchard to carry on the black spot research programme.

**Annual Meeting:** The annual meeting was fixed for July 4, at Box Hill, to be opened by the Minister for Agriculture (Mr. Hogan).

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**Harcourt.**

The shield presented by the Gerrard Wire Tying Co. Pty. Ltd., for excellence in fruit packing, was presented to the Harcourt North State School on June

12, by Mr. R. Downie. Because of consistency in winning this shield over several seasons, it now becomes the property of the school.

In making the presentation, Mr. Downie said his company would donate another shield to keep the competition running.

Mr. E. E. Pescott, Chief Horticultural Supervisor, Dept. of Agriculture, congratulated the successful young Apple packers, viz., Olwyn Jennings, Bertha Bertuch, Shirley Pellas, Eva Eagle, Joyce Barnes, Geoff. Jones, Will Lambshead, Ken. McNiece, Will Cox, Ivan Pellas and Ken. Leversha.

Pleasant speeches were made by Messrs. J. H. Lang, R. Burgess (Head Teacher), and L. Jones.

* * *

Col. E. Harrison, M.H.R., advises that in response to an approach to the C.S.I.R., on the subject of research work, the Department of Agriculture had stated many Harcourt growers had controlled black spot and codlin moth by standard methods. In the various orchards there was a great variation in the losses. Codlin moth took the greatest toll: more instructional work was recommended rather than the establishment of observation plots.

The Department would demonstrate pest control methods under strict supervision in orchards which suffered heavy losses.

## PATENT FOR PLOUGH.

### Verdict in Favor of H. V. McKay, Massey Harris.

The Full Court of the High Court has dismissed the appeal by Mr. G. F. Shave from a judgment of the Supreme Court of Victoria.

Shave had fought an action for alleged infringement of patent against H. V. McKay, Massey Harris Pty. Ltd.

In the Supreme Court the trial judge had upheld the validity of the patent, and decided that the respondent had not infringed it.

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**E. Burwood:** The annual social of the East Burwood Fruitgrowers' Co-operative Association was held on June 13. Mr. Geo. Mock presided.

Talkie pictures showing phases of the oil industry were displayed by Mr. C. J. Nash, B.Sc., of the Vacuum Oil Co. Dancing and supper concluded a happy function.

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**Somerville:** Having won for the third time the competition among Peninsula school Apple packing classes, the Gerrard shield has been presented to the Somerville State School as the permanent holder.

The Gerrard Wire Tying Co. Pty. Ltd. has donated a new shield to keep the competition going.

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These competitions are held in four Victorian districts, viz., Gippsland, Castlemaine, Mornington Peninsula, and Bendigo. Four shields are thus being continuously competed for. Two have now been won outright (by Harcourt North and Somerville), but these, as stated, are being replaced by the Gerrard Co.

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**Kyabram:** At a conference under the auspices of the Northern Victorian Fruitgrowers' Association at Kyabram, Mr. W. J. Young, presiding, an address on Empire fruit marketing was delivered by Mr. G. W. Brown, President of the Victorian Fruit Marketing Association.

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**Mildura.** — The Midura V.C.C.A. executive recently resolved in favor of the enforcing of the standard of 23 ccs. for all Oranges, and to prohibit tolerance over that test.

The chairman, Mr. B. Levy, said he was not in favor of the Victorian Primary Products Marketing Bill now before Parliament, for the appointment of a board to control export. He favored the establishment of a fund throughout the Commonwealth to compensate growers for losses on export.


# Have You Limed Your Orchard?

If your soil is deficient in lime your profits will be adversely affected, BECAUSE

SOUR SOILS PRODUCE POOR GROWTH.
SOIL BACTERIA DO NOT THRIVE, AND
PLANT FOOD IS NOT MADE AVAILABLE.
BEST RESULTS ARE NOT OBTAINED FROM MANURES AND FERTILIZERS.
ALL PERENNIALS REQUIRE LIME.

Lilydale Agricultural Ground Limestone
Lilydale Agricultural Slaked Lime
Lilydale Agricultural Ground Burnt Lime

*Prices and particulars from your local merchant or*

**David Mitchell Estate,** OLIVER'S LANE, MELBOURNE, C.1.

TELEGRAMS: "LIMIL," MELBOURNE. PHONES: CENT. 5725, 5726.

# New South Wales — News and Notes

## Peach Leaf Curl

**Now is the Time to Spray.**

THE TREATMENT RECOMMENDED by the N.S.W. Department of Agriculture to control Peach leaf-curl is to spray the trees during the dormant period—in late winter just before the buds begin to swell—with Bordeaux mixture or lime-sulphur at winter strength.

It is rarely necessary to make more than one application, but in districts in which cool and moist weather is usually experienced in the spring, two applications may be given, one before the buds swell and the second when the flower buds are showing color. Bordeaux mixture has been found to be slightly more effective than lime-sulphur under conditions which favor extensive development of the disease.

Although tar distillate ovicides, which are used for control of Peach aphis, have reduced the amount of leaf curl infection in some cases, these sprays are not as effective against leaf curl as is the case with Bordeaux mixture or lime-sulphur.

**The Work Must be Thorough.**

If, through failure to spray at the correct time the disease causes serious defoliation of the trees, new growth of leaves may be facilitated by a light application of a quickly acting fertiliser, such as sodium nitrate.

## Snow Injury at Batlow

## Repairing Broken Trees

RECENTLY the Batlow (N.S.W.) district suffered from a severe snowfall, when many of the trees were laden with fruit, causing much loss of fruit and the breaking of branches. Much sympathy has been expressed with the Batlow growers.

This subject was referred to and illustrated last month in the "Fruit World."

The following information was circulated by the Batlow Packing House and Cool Stores Rural Co-op. Society Ltd.—

**Repairing of Broken Fruit Trees.**

(Snow Injury, Etc.)

In the drawing together of limbs which have been split off and down into the main trunk of the tree, various recommendations have been made by experts.

Mr. Broadfoot (N.S.W. Department of Agriculture) favors painting the broken surface with Bordeaux paste (1 lb. bluestone to 2 lbs. lime, with sufficient water added to make a paste), and then the application of a mixture of tar and dry sawdust. When the limbs are pulled together the tar sawdust mixture squeezes out and forms an airtight join.

Mr. Ward (Vic. Department of Agriculture) favors the application of Colas (a bitumen preparation put up by the Shell Oil Co.), and considers (as also does their agricultural research chemist) that this preparation has a fungicidal value which makes the use of Bordeaux unnecessary.

Mr. Thomas (Tasmanian Department of Agriculture) says that the general practice in Tasmania is to smooth and paint the exposed surfaces with bichloride of mercury (1-500), and then coat the wounds with Colas.

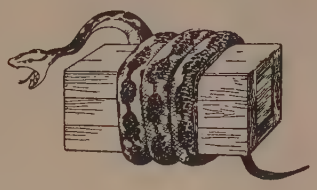
Various practices are being followed about here. Mr. Frank Walker, a practical nurseryman from Tasmania favors smoothing the exposed surface, painting with Bordeaux paste and coating with petroleum jelly. When the limbs are pulled together the petroleum jelly squeezes out and forms an air-tight join. He has found that callousing of any tree wound is much quicker when petroleum jelly is used than when Colas or grafting wax or other preparations are used.

It is essential, whatever preparation is used to apply same to the exposed surfaces **before** they are pulled together, not afterwards, as by this means an air-tight join is far more certain.

**Fruit tree damaged by snow at Batlow, N.S.W.**

**The same tree after repairing. Methods for repairing injured trees described above.**

PYTHON



# Latest Electric Wire Strapping Machines

(All Australian)

## What Users Say—

The Mildura Co-operative Fruit Company Ltd.
May 30, 1935.

Dear Sir,

With reference to the latest type of Automatic Wire Tying Machine which we have been testing at our Merbein Packing House.

We have used this machine in the ordinary run of the work as the packing operations are carried out and have found it to be **VERY SATISFACTORY INDEED. IT GIVES TIGHT WIRING, UNIFORM TENSION, IS FAST AND SIMPLE IN OPERATION AND OPERATES WITH A MINIMUM LOSS OF WIRE AND WE FEEL IT IS THE BEST MACHINE WE HAVE USED IN OUR ESTABLISHMENTS.**

Our Merbein Branch Manager has been very impressed with the work it has done.

Yours faithfully,

(Sgd.) D. C. WINTERBOTTOM,
General Manager.

Renmark Fruit Growers Co-operated Limited.
May 29, 1935.

Dear Sirs,

Following our letter of the 1st inst., we have now had an opportunity of working your improved power Python Wire Tying Machine.

This machine operated with a **RIGHT HANDED ACTION WORKS WITH A SMOOTHNESS AND RAPIDITY THAT WE HAVE NOT SEEN WITH ANY OTHER TYING MACHINE.** It is a great advance on the power machines leased from you during the year and is **CERTAINLY THE FASTEST MACHINE WE HAVE USED IN THE SHED. THE DISCARD OR WASTE AFTER CUTTING IS SMALL, SOMETHING WELL UNDER TWO INCHES** and we feel that the minor difficulties mentioned in our previous letter have been overcome and the machine we are to-day operating **LEAVES LITTLE TO BE DESIRED.**

We might express the opinion that the present machine could be used with confidence by any firms manufacturing products that require wire strapping after packing.

Wishing you every success,

Yours faithfully,
RENMARK FRUIT GROWERS CO-OPERATED LTD.
(Sgd.) E. N. Seary, Gen. Manager.

J. S. Anderson Proprietary Ltd.
South Melbourne.
June 20, 1935.

Dear Sir,

We wish to thank you for your kindness in loaning to us your Python Electric Wire Strapping Machine for operation in our factory.

During the week we had this machine in use, we found that it was **MOST EFFICIENT, VERY EASY TO HANDLE, AND ALTOGETHER AN ECONOMICAL OUTFIT.** There is no doubt whatever that there is a considerable saving in the wire, and feel sure that once you have completed the minor details as outlined by you, you will have an **INSTRUMENT OF EXCEPTIONALLY OUTSTANDING QUALITIES.** We wish you every success in your ventures.

Yours truly,

J. S. ANDERSON PROPRIETARY LTD.
(Sgd.) G. Graham, Manager.

These machines will be supplied to users mounted as a complete mobile unit, with quick adjustments for the tying of cases of varying size. This unit necessitates the wire being placed straight round the cases at even distances from the ends, and the pre-determined tension on the machine gives a uniformity of tightness never attained by any other wire tying machine.

The complete unit will be leased at a low annual rental, maintained and serviced, **with no tags as to the purchase of wire.**

Further particulars on application to:

## Python Wire Strapping Pty. Ltd.

21 HOWARD STREET, NORTH MELBOURNE.
**Phone: F 2708.**

42-44 MEAGHER STREET, CHIPPENDALE, SYDNEY.
**Phone: MA 4392.**

**South Australian Agents:**

**GOLLIN & CO. PTY. LTD.**
**110 North Terrace, Adelaide.**

## Relief for Prune Growers

**Writing Down of Capital Values Recommended.**

In order to rehabilitate Prune growers on the returned soldier settlements in the Young (N.S.W.) districts, a special enquiry committee has recommended to the N.S.W. Government the drastic writing down of capital values, and remission of debts.

Many of the settlers have been unable to pay anything to the Government since 1920. Many cannot even pay rates. In all, about £440,000 is owing by the 220 settlers, many of whom are on the dole or on relief work, and are depending on child endowment.

Growers contend that their output has outstripped consumption.

The farms are at Kingsville, Maimuru, Waterview, and Wirrimah, the blocks averaging about 50 acres at a capita value of about £1,000 a block.

Each grower cultivates about nine or ten acres of Prunes, and five or six acres of Apples and Pears.

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**Windsor:** Mr. F. B. MacKenzie presided over a meeting of forty delegates of the Hawkesbury branch of the N.S.W. Fruitgrowers Federation. Resolutions were carried favoring increase of manure subsidy to £1 per ton; that agents be compelled to sell on a 7½ per cent. commission only, abolishing the flat rate of 6d. per case, and 6d. for stamps and stationery; that increased efforts be made to have the N.Z. embargo against citrus fruits lifted, also the prohibiting of the marketing of citrus fruits in bags, excepting for factories.

**Marketing Legislation:** A resolution was carried, after discussion, opposing any form of the proposed Fruit Marketing Organisation Act. Mr. F. B. MacKenzie and Mr. Matheson were elected delegates to the Sydney conference.

## The Fruit Fly.

**Official Formula for Baiting.**

The N.S.W. Minister for Agriculture recently stated that a number of preparations for the baiting of traps had followed the enforcement of compulsory measure for the eradication of the fruit fly. Tests had been carried out, and it had been found that not one of these preparations was as effective as the prescribed lure, the formula for which is as follows:—**One-eighth of a fluid ounce (one teaspoonful) of vanilla, one half-ounce (a tablespoonful) of household ammonia, and twenty-six fluid ounces (three breakfast cups) of water.**

In addition to being the most effective, states the Minister, the use of the prescribed lure was compulsory under the provision of the Plant Diseases Act.

**The above actual photographs show the extent of the recent heavy snow fall at Batlow (N.S.W.), and the way in which the fruit trees were damaged.** (Photo by courtesy of H. Broadfoot.)

## Arsenical Residue

**Calyx and Stem Ends Should be Excluded.**

AN IMPORTANT POINT has been raised concerning the tolerance of arsenical residue on Apples and Pears. U.S.A. Pacific Coast growers at Wenatchee, Washington, are suffering the same disabilities as apply to Australia and New Zealand.

**Pacific Coast growers are urging the removal of the stem and calyx ends of the fruit before analysis.**

In America the lead tolerance was lowered to .018 for 1935, which produced a storm of protest from Apple producers, particularly from the State of Washington, which in 1934 produced one-third of the nation's Apples.

It is estimated that 75 per cent. of the residue is accumulated in the ends of the Apple, hence the request for the taking of the analysis after the removal of the stem and calyx ends. An approach in this connection has been made to the U.S.A. Government.

Under the foregoing proposed plan, fruit would come under the tolerance simply by wiping. Last season it was necessary to use hot washes, thus damaging much fruit; in fact, the "North-west Fruitgrower" states that the oppressive regulations regarding arsenical residue are draining the life-blood of the great Apple industry of the north-west.

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In discussing this matter, Mr. Walter Mock, J.P., a well-known fruitgrower at Burwood E., Vic., heartily approves of the action taken by American Apple growers, and stating he hoped that Australian growers should, through the right chanenls, similarly approach the British health authorities. Certainly the calyx end should be excluded when measuring arsenical residue.

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**England and Scotland:** We acknowledge having received from Messrs. Burns, Philp & Co., Sydney, agents in Australia for the London and North Eastern Railways, a copy of their handsome and well illustrated booklet entitled, "England and Scotland." The photos are particularly clear, while the information is attractively written. It is certain that in the area served by the London and North East Railway there are numerous places of great beauty and historic interest. Those desiring to obtain a copy of this valuable booklet should make early application to Messrs. Burns, Philp & Co., 7 Bridge-street, Sydney.

# GUARD AGAINST SCALE !

*NOTE.—The above is not a picture of the mountains of the Moon, it is an actual photograph of Scale on an Orange.*

Scale and other insect pests rob you of profits. There is no surer way to guard your crop against these marauders than to *Spray the Gargoyle Way.*

Gargoyle WHITE Spraying Oil is the safest spray to use during the "leafy peroid." It is also the *surest,* because it is scientifically made from a special medicinal oil base that gives lasting protection.

Order your requirements now.

# Gargoyle WHITE Spraying Oil

VACUUM OIL COMPANY PTY., LTD.

# WESTERN AUSTRALIA

**Orchard Workers' Union — Wool Sales Affect Shipping Dates—Redwood Dump Case Retained — Export of 3¼-inch Dunns Recommended—Destruction of Neglected Orchards.**

THE APPLICATION by the Market Garden and Orchard Workers' Union was rejected by the Arbitration Court, but growers realise the possibility of the union making further application for registration at an early date, and to meet the expenses of defence, growers are being asked to sign guarantee forms.

Delegates representing the district association were called together by the W.A. Frutgrowers' Association during the month.

Among the most interesting subjects brought forward for discussion was the question of arranging more

**suitable dates for shipment**

of fruit from Albany and Fremantle. It was pointed out that during the present season far too many boats called in early March and in the middle of the month there was a shortage of shipping freight. This, it was claimed, was due to a wool sale in late February, it being a case of "boats following the wool sales." In view of this the association decided to get in touch with the Wool Brokers' Association, with the object of working in co-operation.

The annual conference will be held at Bridgetown this year on September 5, 6 and 7. Exception was taken to N.S.W. exporting immature Granny Smiths in February, this being borne out by the reports received from London concerning sales of the consignment sent forward from that State. Growers considered that the good name for this variety would be ruined by this means.

In view of reports received from the Agent-General in London, delegates decided **to continue using the red wood dump case.**

The export regulations provide that a 3¼-inch Dunns cannot be shipped to England or the Continent, and growers were unanimous that the 3¼-inch Apple of this variety was much superior to the 2¾-inch of the same variety, and decided to list the question for discussion at the annual conference.

The question of

**neglected orchards**

is continually being discussed by orchardists, and, whilst the Agricultural Department is taking action in a quiet way **to have these grubbed out and destroyed, more speed is desired, so that such orchards will not be allowed to spread pests to commercial orchards.**

Whilst growers realise that the

**color grading regulations**

are somewhat drastic so far as Jonathans are concerned, they feel that the regulation should stand, more especially in view of the increased price received for this variety on the British markets during the present season.

Final payments for the 1933 Federal Fruit Export Bounty have just been received by growers, and, according to a report received from the Minister for Agriculture, the 1934 payments will be made towards the end of June.—Bridgetown Correspondent.

## THREE IN ONE.

### An Interesting Spraying Experiment.

One of the leading fruitgrowers in the Bridgetown (W.A.) district, Mr. H. Lake, related to a meeting of fruitgrowers recently an interesting experiment that he had carried out during the past year. With the object of finding a spray that would destroy red spider, he mixed a spray of 3 lbs. arsenate of lead, 3 lbs. of flour to 40 gallons of water, and sprayed his orchard, missing one tree only, in late November. The result was beyond his expectations, inasmuch as he not only got rid of red spider, but had destroyed looper caterpillars and the curculio beetles, all of which had been very troublesome in past seasons.

Another grower, Mr. E. L. Mitchell, said that he acted on Mr. Lake's suggestion, and tried an area of his orchard with the same spray. It was entirely successful, and on the trees treated with this spray the foliage had a perfect green, whereas on the balance of the orchard the leaves were on the pale yellow side due to the activities of red spider.

The district orchard inspector (Mr. A. Flintoff) said that the experiment was somewhat amazing to him, and would be watched with no small amount of interest during the coming season. Many growers had stated their intention of trying the spray used by Mr. Lake.

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Alexander the Great believed that Onions created eagerness to fight, so he fed them to his troops before battle. Of course, the cynic would say, "An Onion a day keeps the enemy away."

# CANNED FRUITS

## CANNED FRUITS EXPORT BOUNTY.

### An Unusual Condition.

Although the demand for Australian canned fruit in London has been unprecedented of late, and prices have increased, canneries submit that the reduced bounty offered by the Commonwealth authorities is inequitable. They point out that because of abnormally large orders received, they have been obliged to accept fruit of a smaller average size than usual, and some of the fruit is blemished.

The removal of blemishes and the extra cost in handling small fruit, they claim, have raised the cost of production, and has increased waste in the canneries, therefore, they ask for a readjustment of the bounty offered.

Naturally, this has caused the Government some concern, and they fail to see the logic of the request, seeing that not only is the year's turnover heavier than usual, but the market returns are appreciably higher than normally. The matter is being reconsidered.

## GOULBURN VALLEY CANNERIES.

### Assistance Sought for Kyabram and Mooroopna.

A deputation from the Northern Fruit Growers' Association, the Ardmona Fruit Products Co-op. Co. Ltd., and supported by the Amalgamated Food Preserving Employees' Union of Australia, waited upon the Assistant Treasurer (Mr. Hogan) on June 5, requesting assistance in the rehabilitation of the canneries at Mooroopna and Kyabram. The deputation was received in camera.

The proposal submitted, it is understood, was that the Government, in its general scheme for rural rehabilitation, should take over the guaranteed overdraft of the canneries, up to £320,000, in consideration for which the company to issue to the Government non-interest-bearing debentures for £160,000 (the value of the company's assets), maturing at a rate of £8,000 per annum at the end of each year over a period of 20 years, the debentures to be secured by the whole of the company's assets; also, that any moneys available for dividends, up to an amount of £50,000, be paid to the Government in place of interest. It was submitted that in writing off £160,000 and cancelling the interest charges the Government would incur no greater loss than it would suffer if the undertaking were sold to outside interests.

In reply, the Acting Treasurer stated that the Government had already assisted in the securing of interest reduction. Although the deputation's request could not be acceded to by the Cabinet, he agreed to have further discussions with representatives of the canneries.

## Fruit Increasing in Palestine

NO WORLD TRAVELLER of last century would have been optimistic enough to even suggest that Palestine would ever become an exporter of fruit, yet the march of time and the introduction of highly technical methods of fruit culture in other countries has at last awakened Palestine to the possibilities of fruit-export as one of her few commercial assets.

It can be truly said that the marked changes seen in Palestine within the last few years are a revelation to the world. A land that is now a hive of industry, has no unemployment problems, and a land fast rising from the sloth of past generations.

Palestine has always produced fruits of the soil, but in comparison, the productivity of her acres in the last few years provides an almost incredible commentary upon the possibilities of the country under expert technical supervision, and, if continued in the same manner as the development of the last few years, the arid deserts of Egypt, Arabia and Palestine will be well able to, as they once did, feed the world.

It is hard to realise that the dry, apparently dead soil of Palestine can produce luscious fruits. Eighty years ago a box of Oranges was shipped to Queen Victoria by the British consular officer at Jaffa. Thirty years ago the total export of Jaffa Oranges was 500,000 cases, yet last year Palestine supplied European markets with five million cases of Citrus fruits. It is reliably estimated that in ten years' time, owing to the consistent development of this particular industry, twenty million boxes of citrus fruit will be exported.

But the products of Palestine are not restricted to Oranges. Grape culture is expanding in a similar manner, Olives are replacing cereals, whilst Maize, Tobacco, Figs and other products are being harvested in increasing quantities. Agricultural departments are teaching the farmer the technique of soil development, and even in the public schools, agriculture is being taught.

But not alone to primary production is the indefatigable Jew giving thought in the remaking of Palestine, which is something in the nature of a religion. Seaports are being constructed, roads made, cities built, railways laid, and airports provided for the latest form of all transport. One thousand two hundred miles of pipe-line have been recently laid, bisecting the country, conveying oil from the oil fields of Iraq and Persia for shipment at Mediterranean seaports, costing £10,000,000 sterling, and employing 10,000 workmen in a utilitarian task much more important to the world than the building of the great pyramids, and crossing the Jordan and the Plain of Esdraelon, the one-time battleground of the world, in its search for an outlet to the Western world.

Jaffa's port has been greatly developed to serve her overseas trade, but the new port of Haifa, with its splendid breakwater and shipping facilities, opens up a new future for this long neglected country. The harbor can now accommodate large vessels, transport facilities by rail, road and air radiate from Haifa and her trading figures are increasing every year. Palestine has become and will be increasingly a strong competitor in the world's fruit markets.

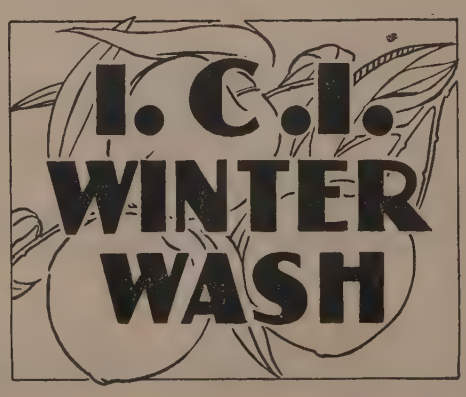
### N.Z. FRUIT FOR U.S.A.

With regard to the export of Apples from New Zealand to U.S.A., Mr. A. Osborne, manager, N.Z. Fruitgrowers' Federation Ltd., states that in 1934, 4,500 cases were shipped, and in 1935, the season just closed, 20,300. It is expected that next year further increased trade will be experienced.

With regard to Pears, we find that so far, no shipments of Pears to U.S.A. have been made.

The trade between New Zealand and U.S.A. at the present time looks very promising.


**Bigger crops from your trees with**




Control the ravages of Peach Aphid, Red Spiders, Scale and Caterpillars in the egg stage, and count on bigger crops, better fruit and more profits. I.C.I. Winter Wash can be relied upon to protect your trees from hungry insects—recent tests in Victoria have proved it 100% effective.

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I.C.I. Winter Wash is not an added expense—it saves its cost many times over in more and better fruit. Order now, from your local dealer.

*Report of Ardmona test published in Journal of Agriculture, Victoria, Vol. 31, Part 6. June. 1933.*

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MACDERMOTT & SHEEDY, City Fruit Markets, Sydney, N.S.W.
A.C.F. & SHIRLEYS FERTILIZERS LTD., Brisbane, Q'land.
Gardners' Supply Stores Co-operative Society Pty. Ltd., New Market, Grenfell St., Adelaide.
C. E. CAMPBELL, Endean's Bldgs., Queen St., Auckland, N.Z.

# What Our Growers Are Thinking.

PRUNING GRANNY SMITHS AND DELICIOUS

FRUIT MARKETING BILL

## Pruning Granny Smith Apple Trees

**By T. J. FULLER. Pakenham East, Victoria.**

At the Pakenham field days, under the auspices of the Victorian Fruit Marketing Association, pruning demonstrations have been given by Mr. T. J. Fuller, whose experiences with Granny Smiths are, at the request of the Editor of the "Fruit World," set out and illustrated herewith. Mr. Fuller writes as follows:—

AT THE TIME OF PLANTING care should be taken in selecting a suitable site for this variety, always avoiding a position that is exposed to the cold, south-westerly wind, which, in the opinion of the writer, is solely responsible for the trees making vigorous growth on one side (facing the east).

When planted out (preferably with good strong two-year-olds) the trees should be cut hard back to three or four buds, and started with a good wide foundation.

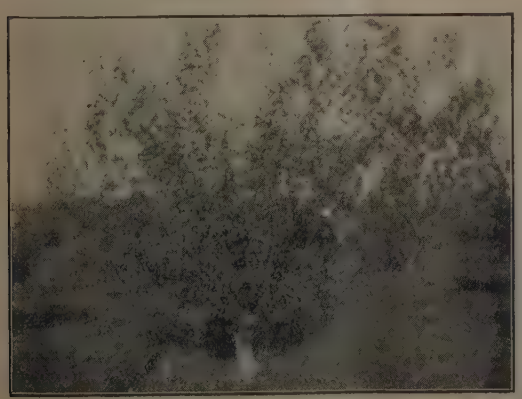
Never be afraid of getting them too wide, leaving three or four limbs for the first year.

When pruning the second year, care should be taken to remove the strong growth from the inside of the trees, and take advantage to make use of all outside limbs in suitable positions for spreading the tree, during the second year's growth.

Excellent results will be obtained by **thinning out the young growth** from the inside of the trees, taking care not to be too severe: for best results remove sufficient to let the sun and light into the heart of the tree, cutting first about the middle of January, repeating the operation about the middle of February. This gradually regulates the flow of sap and strengthens the main limbs.

From now on the trees will become more interesting, and the aim of the pruner should be to build up a strong, spreading tree. It will be found necessary in such an upright grower as the Granny Smith to take advantage of any opportunity to widen the frame of the tree by cutting to an outside lateral if in the right position, and, most important, cutting the outside limbs hard.

**4-year-old Granny Smith, pruned, carrying 21 limbs.**



**17-year-old Granny Smith Apple Tree, carrying 32 limbs.**

**The writer does not recommend summer thinning after the tree has reached four or five years of age, and if the trees are responding well to treatment the pruner should pay attention to fruit production, and regulate his cuts to developing fruit buds.**

As the trees settle down to bearing it will be found that they have a habit of forming bulbs, from which weak buds develop. By cutting through these bulbs it will be found that the buds strengthen more rapidly. When the trees have reached twelve or thirteen years of age it is generally found that they are getting high. The pruner can then revert to hard cutting on the tops, and from then on work for a low-headed and spreading tree. The result will be, if manured liberally, that the buds from top to bottom of the tree will retain their condition, and ensure continuous crops.

**4-year-old Granny Smith Apple Tree, unpruned.**

## FRUIT MARKETING BILL

(The Editor, "Fruit World.")

Sir,—You remark that the Marketing of Primary Products Bill is receiving "a mixed reception" from the fruitgrowers. I only hope that growers will speak with no uncertain voice on this question.

The question might well be asked—What is the country coming to? Where will this thing end? If this method of legislative compulsion is allowed to creep into our private affairs, then the incentive to progress will be crushed, for who is going to work to produce fruit with the knowledge that his product will be taken by an irresponsible board?

I question very much whether Parliament can legally pass a law like this compelling a minority to observe it. We might well ask, where is all this liberty which we so proudly boast about? I fail to see any pros and cons in this matter; it is just simply whether we are going to allow our rights and privileges as free citizens to be taken away.

There is a danger of losing these liberties if we are not watchful, the age-old principles of every one being allowed to work out his own destiny in the way he thinks best is being challenged, and it behoves us as free men to be on the alert lest those principles be lost.—Yours (signed) W. J. Nankervis, Diamond Creek.

Vic., 20/6/35.

# PRUNING APPLE TREES

## Hints on Cutting the Granny Smith and Delicious Varieties

### Northern Spy Stock Not Suitable for Granny Smith

(By H. Leversha, Harcourt, Vic.)

AS THE PRUNING SEASON is with us again, I am glad to give my experiences with Granny Smith and Delicious. These notes are mainly for the younger grower, who would be dealing with young trees.

In pruning Granny Smith, one should not introduce too many limbs, as this variety has a tendency to grow several weak limbs, and, as the tree develops maturity, it is not unusual to see trees with the growth mostly on one side; this is usually caused by not checking the stronger limbs.

When pruning the young trees, give the weaker ones about two or three buds more, otherwise when weak limbs have a crop of fruit on they fall against the other limbs, and the result is a lot of marked fruit. In other words, by giving young Granny Smith trees the advantage of about three buds when pruning you will get a better balanced tree. This applies, of course, in pruning when the framework of the young tree is being built up.

I think the Northern Spy stock is not suitable for this variety.

In pruning the Delicious—this variety grows much stronger wood, and needs from nine to fourteen limbs evenly spaced to allow the fruit to color; these trees when young are continually throwing out strong side limbs, and young growers are tempted to prune them. If this is done, however, the main limbs will be stopped from growing. These side limbs should be removed, at the same time pruning the main limbs a little longer.

I am a strong believer in allowing my trees to spread. It allows the sun to get into the centre of the trees, which develops strong buds, also getting better color, especially in colored varieties.


ORCHARDISTS!

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This year don't risk the danger of an unbalanced fertiliser programme which usually results in vegetative trees of slender growth, and produces poor yields of low quality fruits.

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## Swedish Duty on Fruit

### May and June Now Included in Low Duty Period.

**The Australian Apple and Pear Export Council advises having received advice from the Department of Commerce that the Swedish Government had agreed to include May and June in the period during which a low rate of duty would be imposed on imported Apples and Pears.** Previously the low rate duty period expired at the end of April.

This is pleasing information. It is a matter which the Apple and Pear Export Council has consistently kept before the authorities. The low duty rate is 10 crowns per hundred kilos (about 7/10ths of a penny per lb. Australian currency). The full duty is about double this sum.

* * *

The Swedish Chamber of Commerce, in a letter to the President of the Apple and Pear Export Council (Mr. J. B. Mills) pointed out that the importation of Australian goods into Sweden during a period of nine months (not including the Apple season) were valued at 1,837,000 crowns direct trade, but that the total imports of Australian goods from all countries, principally U.K., were valued at 5,258,000 crowns. It would thus be noted that the exports direct to Sweden according to official statistics, were only a small portion of the Australian goods which Sweden bought.

* * *

### A Tasmanian Enquiry.

At a recent meeting of the Tasmanian State Fruit Board, reference was made to a press report that N.Z. fruit could enter Sweden till the end of August at a low rate of duty. This privilege was desired for Australia.

**Enquiries from official sources however, reveal that the period for low duty for fruit for Sweden expires on June 30, both as regards supplies from Australia and New Zealand.**

# REWORKING FRUIT TREES

## Modern Methods Demonstrated in South Australia

WITH A VIEW to getting a quicker crop return and avoiding probable loss of trees through attacks by wound fungi, two new methods of reworking trees are now advocated. Both methods involve a considerable amount of time and labor, but it is claimed that the advantages of the new methods outweight the disadvantages. Briefly, the two methods are as follows (states the South Australian "Journal of Agriculture"):—

### Peg or Plug Graft.

The whole tree should be denuded of its laterals and "side" branches—which should be completely cut away just before commencing operations, following up the leaders to a point where an ordinary whip-tongue graft might be used. This treatment might be modified somewhat where very hot conditions prevail, sufficient lateral and spur growth being left to protect the limbs from sun scald injury.

The scion, cut straight across the top, should carry two or three buds, and be about 3 inches to 4 inches long. It should be wedge-shaped at the base, having a short bevel not more than ½ inch in length, and with a bud just where the bevel cut commences. With a ⅝-inch or ¾-inch chisel on which the bevel has been ground down to about double its ordinary length, or with a small sharpened screwdriver, incisions are made at right angles to the growth of the limb, with a slightly downward angle.

The incisions should be on the upper sides of the limbs, 9 inches to 12 inches apart, and of sufficient depth to allow the wedge-shaped scions to be tapped firmly into position. No white cut surface should be showing, and the base bud should be just in contact with or slightly below the bark. It is advisable to make all incisions on lime before inserting scions. The scions should then be very carefully sealed, or rendered airtight with either grafting wax, crude petroleum jelly, and other sealing prepartion. A 50-50 combination of paraffin and crude petroleum jelly makes a very useful sealing preparation, being very plastic without being sticky.

### The Bark Graft.

The scion is prepared in much the same way as for the ordinary bark-graft, with a cut surface about one inch long on one side only, with a basal bud in such a position that subsequent growths will have room for free development. A small section is sometimes cut from one side of the wood to enable better contact to be made with the cambium.

Various types of openings may be made in the bark, but the inverted L (⅂) shape will be found most convenient. As with the peg graft, 9 inches to 12 inches apart is a good distance to space. For this type of grafting the bark should run freely. The downward incision should not be too long. The bark should be lifted, and the scion gently forced down between the bark and the cambium. A small tack or brad is driven through the scion to keep it in position, at the same time pinning down the raised piece of bark. A convenient form of tack is that known as the bootmaker's "tingle," or a ½-inch x 20 brad will do. As with the peg graft, the whole of the cut surface of the scion should be inserted beneath the bark and carefully sealed to exclude the air. With both forms of grafting it is wise to look over them a fortnight or so after the operation and reseal those that require attention.

**Wood for scions should be cut while the tree is dormant.** They may be "heeled in" in a more or less horizontal position, with the ends covered by moist sand, or be kept in cool store, standing in boxes or tins with a few inches of moist sand in the bottom.

It is generally considered that the bark graft is the most successful method, but a combination of both methods would enable the work to be started earlier, the plug graft being used for the lower and larger portion of the limbs, and bark grafts for the thinner and higher sections when the bark would run freely.

It is important that any growths rising from the old variety should be removed to prevent them becoming dominant.

Mr. R. Fowler (Manager of the Blackwood Orchard, S.A.) demonstrating modern methods of refurnishing fruit trees.

## ENGLISH FRUITGROWERS' TROUBLES.

### Snow and Frost.

"Apparently the troubles of the fruit industry are not confined to Australia," writes Mr. G. F. Hill, of Warragul, Vic., who encloses a newspaper clipping from his brother in England. In bold headlines the report reads:—

**Devastated Fruit Areas Lie Under Mantle of May Snow.**

Frost—more severe than for 25 years, has wrecked the fruit harvest in many parts of the West of England.

Garden crops are ruined, — Potatoes, Beans, Strawberries, with great damage to fruit tree blossom.

(Note.—May in England corresponds to November in Australia.)

:: :: :: ::

Sympathy is extended to our English fruitgrowing friends in their time of trouble.

## A KINDLY DEED.

### Fruit for Hospitals.

Returned soldier citrus growers in the Mildura district have sent over 1,000 cases of citrus fruits to ex-soldier patients in Melbourne hospitals.

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MASSEY-HARRIS ORCHARD PLOUGH

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N.S.W. Representatives.—Macdermott & Sheedy, Municipal Fruit Markets, Sydney.
West Aust. Representative.—A. Hicks, 18 William Street, Perth.
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Bankers:—National Provincial Bank Ltd., Long Acre, London. Cable Address:—"ORLEMFRUIT," London.

# ◂FRUIT TREES▸

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# DRIED FRUITS — NEWS AND NOTES

## Dried Fruit Acts

**High Court Upholds Validity of Act, Compelling Export in Order to Have Licence for Interstate Trade.**

**F. A. James v. Commonwealth.**

**Case Now to Go to Privy Council.**

A JUDGMENT of great importance was delivered in Sydney on June 11, when the High Court held (in effect) that the Commonwealth was not bound by section 92 of the Commonwealth Constitution providing for free trade between the States. This decision has a distinct bearing on the marketing legislation enacted in Australia.

Frederick Alexander James, dried fruits merchant, Adelaide, claimed that the Dried Fruits Act was beyond the power of the Commonwealth Parliament, and therefore invalid; that it was not necessary for him to hold a licence in order to carry on interstate trade, and that shipping companies and other carriers should be allowed to carry his dried fruit to the other States without hindrance. He asked or an order to restrain the Commonwealth from preventing him fulfilling his contracts with interstate merchants.

The Commonwealth pleaded that the Act was valid, and that the Minister for Commerce fixed from time to time a percentage of the total output of dried fruit which each holder of a licence was required to market outside Australia.

In his judgment, the acting Chief Justice (Sir George Rich) said that the validity of the Act depended on the court's ruling that section 92 did not bind the Commonwealth. Subject to an appeal to the Privy Council, it was the court's responsibility to interpret that section. The court should hold that the Commonwealth was not bound by the section. If the Privy Council was willing to undertake the interpretation of section 92 in relation to any of the transport cases it would be satisfactory for it to pronounce upon this question also.

Mr. Justice Starke said that collective marketing of goods and competition between railway and motor services had assumed national importance, and important decisions had been given in the High Court upon legislation affecting such matters and the relation of section 92 to that legislation.

Mr. Justice Dixon said that the ruling of the High Court that it did not bind the Commonwealth was open to serious question. Notwithstanding his individual opinion, he thought that the court should hold that section 92 did not bind the Commonwealth.

**"Section 92 Infringed."**

In a joint judgment, Mr. Justice Evatt and Mr. Justice McTiernan said that it was clear that the Commonwealth's legislative and executive authority had been used to enforce a definite policy of limiting and prohibiting the marketing of dried fruits in the various States. That policy was an infringement of section 92, and the plaintiff therefore would be entitled to relief unless the Commonwealth was immune from the operation of the section. There was no real ground for attributing to it any such immunity. They thought, however, that the two cases in which the majority of the High Court had stated that the Commonwealth might prohibit and restrict interstate trade should be followed.

The case is to go to the Privy Council.

### AUSTRALIAN DRIED FRUIT SALES IN GREAT BRITAIN.

The chairman of the Commonwealth Dried Fruits Export Control Board (Mr. W. C. F. Thomas) advises that during the two weeks ended June 20, the sales of Australian dried fruits in Great Britain, recorded with the London agency of the board, amounted to 1,908 tons.

These sales included 917 tons of Currants, at an average of £31/13/10, and 705 tons of Sultanas at an average price of £40/17/10 per ton. The offtake is steady.

## Dried Fruits in N.S.W.

**Quotas for 1935.**

The Minister for Agriculture, on the recommendation of the N.S.W. Dried Fruits Board, has determined the following quotas for the 1935 season under the State Dried Fruits Act for purposes of interstate trade: — Currants, 14 per cent.; Sultanas, 10; Lexias, 40; Prunes, 33-1/3; Apricots, 47½; Peaches, 30; Nectarines, 50; Pears, 45.

These quotas are the maximum proportions which may be sold on the State market, and are known as "home consumption" quotas.

The Minister for Commerce has approved of the complementary quotas, namely:—Currants (per cent.), 86; Sultanas, 90; Lexias, 60; Prunes, 66-2/3; Apricots, 52½; Peaches, 70; Nectarines, 50; Pears, 55, being determined as export quotas under the Commonwealth Dried Fruits Act for purposes of interstate trade.

The right is reserved to amend from time to time the quotas decided upon if the circumstances call for such action.

### UMBRELLAS FOR CURRANTS.

**Seven Million Yards of Cloth.**

When Currants are getting ripe in Greece they must be protected from rain, and the Grecian grower covers them with cloth coverings. Last year Greece produced over 180,000 tons of Currants, the major proportion of which went to England, says an English exchange.

Up to date, each grower bought his own coverings, but co-operation is spreading even in Greece, and now the Currant Office of Athens buys for everybody, necessitating an order recently placed in England for seven million yards of Lancashire cloth. The order was parcelled out to several mills, and soon operatives will be eating dried fruits which their own product has covered in the Grecian vineyards.

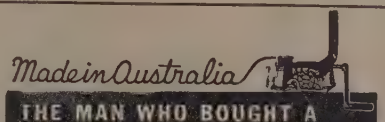
**That Was a Dirty One.**

Teacher: Willie Jones your face is dirty, I can see what you had for breakfast.

Willie Jones: Well, what was it?

Teacher: Jam.

Willie Jones: Wrong! Jam was yesterday.

didn't realise how much they were costing per foot mile until it rained!

The real comparison of economy and efficiency of wire strapping systems can only be made in the height of a packing rush. ANALYSE GERRARD values, and consider reliability and speed.

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# TASMANIA.

## Meeting of New Fruit Board.

**Overseas and Interstate Freights :: Canadian or Dump Cases :: The Orchard Tax.**

AT THE FIRST MEETING of the newly-elected Tasmanian State Fruit Board held in June, Mr. C. O. Smith presiding, there were also present Messrs. W. H. Calvert, M.L.C., T. Burnaby, B. M. Clark, J. R. Abel, L. S. Taylor, R. H. Thompson, J. H. Astell, D. E. Ryan, and the acting Secretary, A. J. Honey.

**Trade With the East:** It was decided on the motion of Messrs. Burnaby and Thompson, to seek export markets for Apples to the Near East and India — direct from Hobart.

**Fruitgrowers' Defence Fund:** Mr. Taylor considered that the Defence fund should have been used to fight a legal case re fruit ex "Buteshire," and moved in favor of the Board taking over this fund. Mr. Astell said that the Defence Fund could not be handed over to the Board except on an order of the Supreme Court. The present trustees would take action in any case where recommended by the Board

**Canadian or Dump Case:** Several delegates spoke in favor of the standard (Canadian) case being recognised as the standard for Australia, but it was decided to recommend to the Apple and Pear Export Council that no change be made compulsory for the 1936 season.

**Shipping Freights:** The need for reduction of freight on export fruit was emphasised, and it was decided to protest against clause 7 of the Industries Preservation Act. Mr. Calvert and Mr. Burnaby urged that care be exercised in this connection, as the carriage of fruit in foreign ships was involved.

A resolution was also carried in favor of a reduction of interstate freights: from Victoria to Brisbane the freight was 11½d. per case, from Hobert to Brisbane, 1/10 per case.

**Orchard Tax:** The matter of fixing a rate for orchard tax (the maximum is 2/- per acre) and determining the time for payment, was deferred till next meeting.

### Nearly 2½ Million Cases of Apples and Pears Exported.

The departure of the "Chitral" with 23,804 cases of Apples for London, closed the 1935 Tasmanian fruit season. During the season, 2,496,435 cases of Apples and Pears, including 355,980 cases from Beauty Point, were shipped. The quota was exceeded by 177,054 cases. Forty-four ships came specially to Hobart to load fruit.

### IMPERIAL FRUIT SHOW, 1935.

The Department of Commerce has received class schedules and entry forms for the Imperial Fruit Show and Canners' Exhibition, to be held at Cardiff, England, from October 25 to November 2, 1935.

This show offers Australian exporters an opportunity of displaying exhibits of Apples, Oranges, Lemons, Grape Fruit, canned fruits and honey, and demonstrating in competition with other portions of the Empire the high quality of our produce. In the past, Australian exhibits have achieved considerable success, and it is hoped that this year's show will be well supported.

Full particulars may be obtained upon application to the Secretary, Department of Commerce, 419 Collins-street, Melbourne.

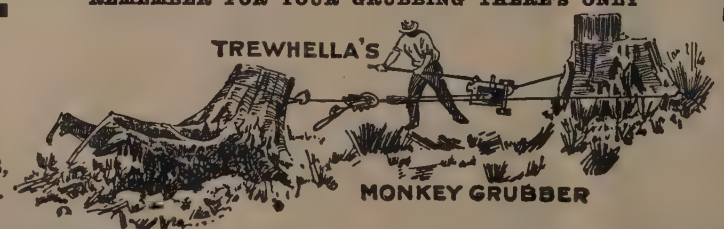

ARE YOU GRUBBING?

Previous experience had convinced me that to be really efficient a grubbing machine should have ample power and ropes that will meet the heavy demands required of them. I found that shovel and axe work is very costly either by itself or in conjunction with a machine. The machine that offered these features, with a host of others, was THE "MONKEY" GRUBBER.

It gave me the power of 260 pairs of hands in a simple and compact form; the lever is short, so that I am able to stand firm-footed and get the full stroke. There are two speeds in the machine, as well as an automatic release that allows me to let off a strain, or as the machine will work in any position, it comes in for all jobs that would require a chain block. It is taken to the job on a pair of wheels like a barn truck, and is rigged for work in a few minutes. The ropes are in lengths that I find easy to handle, and each one is fitted with hook and loop couplings, so simple and absolutely IT for effectiveness. The makers have included a sturdy snatch block with a novel method of securing to the ropes, and also a fine type of firm gripping rope shortener. The latter makes it very easy to accommodate the lengths of rope to the tree or stump being pulled, and is quickly released from the rope. The combination of so many time and labor saving features makes the "Monkey" Grubber a superior grubbing outfit.

REMEMBER FOR YOUR GRUBBING THERE'S ONLY

TREWHELLA'S



MONKEY GRUBBER

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# CITRUS — NEWS AND NOTES

## THE AUSTRALIAN CITRUS INDUSTRY.

### Recommendations by Agricultural Council.

The Australian Agricultural Council, which consists of Ministers of Agriculture and their advisers, recommended, at its recent meeting at Canberra, the establishment of an Australian Citrus Board, with wide powers to control exports, to co-ordinate marketing in Australia, and generally to reorganise the citrus industry, including the examination of the producers' debt position.

**It was emphasised that the mere establishment of an Australian Citrus Board would not solve the problems of the industry. For orderly marketing, growers must be prepared to eliminate low-grade fruit.**

## CITRUS INVESTIGATION.

### Preservation and Storage of Oranges.

To study the preservation and storage of Oranges and other problems affecting the citrus industry, a co-operative plan has been adopted by the Department of Agriculture in N.S.W., Victoria, South Australia and the C.S.I.R. The scheme is financed by the £2,000 grant for five years from the Commonwealth Government. Investigations are to be carried out on uniform lines at Newcastle and Griffith, N.S.W., also at Melbourne, under the control of a representative committee.

## 1935 LEMON CROP.

It was announced recently that the Fruit Industry Sugar Concession Committee had fixed the minimum price for fresh Lemons purchased by factories for the 1935 crop, i.e., £7 per ton for metropolitan factories and £6 per ton for country factories in all States, delivery f.o.r. at the station from which the Lemons are taken from the trains.

Where a factory is reasonably near an orchard the basis of delivery will be at the factory; factories to supply and pay freight on empty bags. If factories pay less than the minimum price fixed, and fail to observe other conditions, they will not be entitled to receive from the committee domestic sugar rebates and special export assistance in respect to manufacture of Lemon products.

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## CITRUS CROPS IN N.S.W.

Continued dry weather and frosts are causing serious damage to trees and fruit in coastal groves, and the outlook for this season's crop is not promising, states the latest report issued by the Department of Agriculture.

Generally, development of practically all fruit was retarded, and a large percentage will be undersized; in some instances, doubts are expressed as to the likelihood of a quantity reaching marketable size.

Coloring of Valencias is much more advanced than in normal years, and if rain is not soon received the quality will be affected. In the Hills district, Common Oranges are falling. Around Windsor, Navels are heavily cropped, and some groves of Joppas promise to yield exceptionally well.

On the Murrumbidgee Irrigation Area Navels are coloring well, and the size is satisfactory.

Some heavy crops of Lemons are in sight in the Leeton district; the fruit is well sized, and quality is said to be good.

### NAVEL ORANGE EXPORT.

The Department of Agriculture reminds citrus growers that under the present arrangements, Navel Oranges exported to U.K. after mid-July will not be eligible to participate in the Commonwealth bounty of 2/- per case.

## W.A. CITRUS CROP.

### Dry Weather Reduces Yields.

REGARDING the 1935 W.A. citrus crop, Mr. G. W. Wickens, Superintendent of Horticulture, W. Aust., writes as follows:—Earlier in the season I anticipated that the citrus crop this year would be an average one—Oranges ranging between 220,000 and 235,000 bushels, Mandarins about 12,000 bushels, Lemons about 55,000 bushels.

The continued dry weather, however, is having a bad effect on the development of the fruit, and the quantity may be less than estimated owing to small size, particularly "Valencias."

## CITRUS IN SOUTH AUSTRALIA.

**Citrus crop prospects** for South Australia are set out as follows by Mr. A. G. Strickland, M.Ag.Sc., Deputy Chief Horticultural Instructor:—

**Grape Fruit:** Good crop, Mount Lofty Ranges North and Lower Murray (Mypolonga) area.

**Lemons:** Light to medium in north; fair to light, Adelaide Plains; good to heavy, Mount Lofty Ranges and Lower Murray (Mypolonga); average in southern area.

**Oranges:** Variable, but generally light in north; average Adelaide Plains; patchy and below normal in Mount Lofty Ranges and Mypolonga. Murray Valley —above average at Berri, but sightly below at Kingston, Moorook, Renmark and Waikerie. Average for southern area.

**Oranges, Mandarins:** Promise of good crop Murray Valley district.

**Oranges, Poorman:** Fair to good on Adelaide Plains.

## N.S.W. CITRUS GROWERS.

### Serious Plight Through Lack of Rain.

**Parramatta** (15/6/35).—Orange and Mandarin growers in the Parramatta and Hawkesbury River valleys are facing a crisis because of the long dry spell. The trees are bearing heavy crops. Should rain come now the fruit would probably burst. If the dry spell continues the fruit will not mature.

Around Glenorie, Arcadia and Galston, citrus growers state they do not expect to market more than 5 per cent. of their crops. Where poultry keeping is

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H3/35

conducted in conjunction with fruit growing, producers state that the proceeds from the fowls are seeing them through their present troubles.

## GOVERNMENT ASSISTANCE TO GROWERS.

The Minister for Agriculture (Mr. Main) announced that in view of the difficult financial position of many coastal citrus growers, advances would be made for purchase of fertilisers, spraying and fumigating materials, also sustenance. The advances would be made, continued the Minister, pending the passage of marketing organisation or a complete reorganisation of the industry.

## MARKETING IMMATURE ORANGES.

A deputation from the Citrus Growers' Co-operative Association Ltd. waited on the Minister for Agriculture (Mr. Hogan) in mid-June requesting the raising of the standard for sweetness in Oranges marketed.

The secretary, Mr. M. B. Duffy, stated that owing to Oranges being unpalatable the market was seriously affected, as people purchasing sour Oranges refrained from further purchases for a long period.

The secretary of the Retail Fruiterers' Association, Mr. E. W. Thompson, said that owing to immature Oranges being marketed, fruit purchased by retailers remained unsold. He advocated delaying the opening of the citrus season for one month in order to have sweet Oranges available.

In reply, Mr. Hogan stated that nearly 500 cases of immature Oranges this season had been condemned. He congratulated the association in bringing this matter forward.

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Commenting on the foregoing, the manager of the Victorian Central Citrus Association (Mr. A. W. Schwenneson) said the V.C.C.A. had already had this matter in hand for some time: the public should be protected from the marketing of immature Oranges. The standard of maturity in Victoria was similar to that in U.S.A.

## SPANISH ORANGES.

### Heavy Damage by Frost.

**OWING to one of the worst frosts in history, the Orange production has been heavily reduced. The frost came in February. (This corresponds with August in Australia.) The injury is estimated at 75 per cent. of the fruit remaining on the trees. Shipments to U.K. practically finished at the end of March, instead of going on during the English spring and summer.**

# Bounty on Orange Export.

## 2/- PER CASE UNDER DEFINED CONDITIONS.

**No Bounty on Navels Exported After July 15.**

THE Minister for Commerce has made available the conditions to be observed by shippers of Oranges in order to participate in the Government bounty for 1935.

The bounty is 2/- per export case, and applies only to—

Oranges of "Special" and "Standard" grades exported to U.K. during 1935, with the exception of Navel Oranges shipped later than July 15, 1935.

The fruit must be clipped from the trees by means of a blunt-nosed clipper. Special conditions as to the handling and packing of the fruit are laid down.

Wherever possible, all fruit shipped is not to exceed a temperature of 53 deg. F. at the time of loading.

The Oranges are to be packed only by packing houses—private, proprietary or co-operative—licensed or approved by the State Departments of Agriculture. The fruit must not be treated by the borax treatment.

Cases must be prominently marked on the end or ends with particulars as to the variety, the name or registered brand of the grower or exporter, the number of Oranges in the case, and the grade. The word "Australia" must also appear in the marking.

Further details are available from the Department of Commerce in Melbourne, Sydney, Brisbane or Canberra, the Marine Branch, Fremantle, or to the State Departments of Agriculture.

## CITRUS EXPORT TO N.Z.

**Controlled Quantities From South Australia.**

**Shipments Through Murray Citrus Growers' Co-op.**

The Commerce Department announced recently that the N.Z. Government had signified its readiness to accept this season controlled quantities of South Australian Oranges under the same conditions as have obtained during the past two years.

Permission was given for shipment, per "Waitaki," leaving Melbourne June 26, of 10,000 cases of Oranges for the South Island, and 7,000 cases for the North Island, and per "Wanganella" on July 10 of 8,000 cases for the North Island. Later advices will be received from N.Z. as regards the quantities which may be exported by subsequent vessels.

Last year's arrangement whereby all S. Aust. Orange growers were given an equal opportunity to export to N.Z. through the Murray Citrus Growers' Co-op, will be continued.

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## LEMON CURING.

(By Geo. W. Wickens, Superintendent of Horticulture, Western Australia.)

VALUABLE HINTS on the subject of Lemon curing are given by Mr. G. W. Wickens, W.A. Superintendent of Horticulture, in a recent issue of the W.A. Journal of Agriculture. The hints are as follows:—

**Picking.**

Gather the fruit when it reaches a diameter of 2½ inches, and, while still green or yellowish green. Do not store fruit which is fully yellow and tree ripe.

Each Lemon should be clipped (not pulled) from the tree in such a manner as not to remove the "button," and this can best be done by making two cuts,—one when severing the fruit from the branch, and another shortening the stem to about one-eighth inch in length before placing in picking box. Great care must be exercised when picking to prevent injury to the skin of the fruit, any abrasion of which is almost certain to result in mould infection.

Do not tip the fruit from a picking box into a sweat box, but handle each fruit separately throughout the operation of gathering and storing; best results will be obtained if the pickers use gloves, and the picking boxes are padded.

No Lemons should be stored which show skin blemishes from limb rubs, thorns, etc.

**Sweating.**

After the fruit is gathered, it should be placed loosely in boxes—petrol cases are suitable—and stacked in a well-ventilated shed, from three to seven days, according to weather conditions being dry or damp, so as to allow the fruit to dry off, i.e., "sweat."

**Storing.**

When sweating is completed, the fruit can be stored for curing in several ways, according to the number to be treated, and the facilities the grower is able to afford.

**Method No. 1.** Wrap each fruit in sulphite tissue paper—Apple wraps—and pack loosely in cases lined with paper at bottom and sides and doubled over the top. Stack in a cool, dark shed, which must not be draughty. If shed cannot be darkened and draughts eliminated, cover the stacks of fruit with canvas sheets or bags, and during the early period of storage raise same occasionally at night, preventing, as far as possible, great variations in temperature and humidity. Examine the fruit 14 days after storage, removing any showing signs of mould. This can be discerned without unwrapping the Lemons. Examine again at later periods, the time of which will vary according to condition of fruit, but if it has been handled

with care throughout, very little decay should be found.

**Method No. 2.** After sweating, wrap each fruit in sulphite tissue paper. Line the storage cases with paper, and pack fruit loosely in these, using chaff as a filler, as follows:—Just cover the bottom of the case with a layer of chaff; place thereon a layer of Lemons; then fill spaces between and cover fruit with a further layer of chaff; then another layer of Lemons, and so on until case is filled. Stack, handle and examine in shed same as advised for cases packed without chaff.

**Method No. 3.** After sweating, place the fruit loosely and unwrapped in storage cases lined with paper. Stack cases in shed free from draughts in blocks of 40 to 50, and cover these with canvas tents. Place a dish of water inside each tent, thus maintaining humidity, and preventing excessive shrinkage by evaporation of fruit. If drops of moisture appear on surface of fruit, raise the sides of tents until these have disappeared; then drop again into position. Examine the fruit periodically for mould infection.

**Method No. 4.** Underground cellars, if properly constructed, make satisfactory storage places, but require careful attention in preventing moisture from oozing through, or collecting on the walls and floors during winter rains, and an air circulation which will allow of gases given off from the fruit being carried out of the chamber, must be provided.

**Finally, it must be remembered that no matter what method of storage is adopted, none will be successful if the fruit has been bruised or the skins scratched. Gathering the fruit at the right time and avoiding skin injury are essentials in successful Lemon curing.**

— THE —

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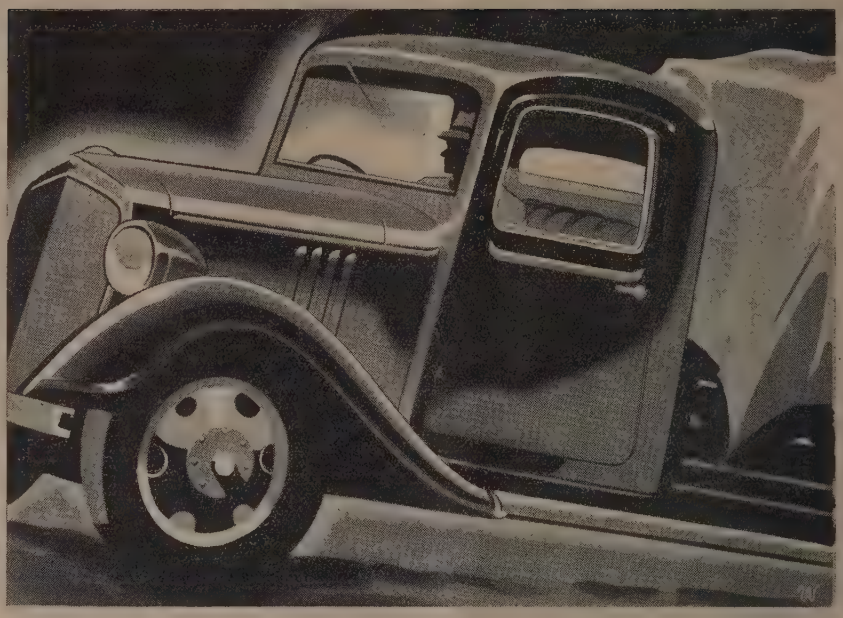

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# Motor Cars and Trucks

## Useful Hints

### LAMPS.

DRIVERS are often held up by failure of lights, and have difficulty in locating the trouble. Naturally, the two first things to test are the fuse and the battery. Check the latter by trying the selfstarter. If it will swing the engine, the battery is in good condition, so the trouble will be either in the lamp fuses, globes, or wiring.

Should the lamps burn brilliantly, but fail to illuminate the road, they require refocussing. This is done by moving the lamp-holder backwards or forwards in relation to the reflector. The lamps may be focussed correctly, but may be tilted upwards or sideways, in which case it would be necessary to reset the lamp bracket. If the lamps burn very dully, or not at all, the battery probably requires attention. If the lamps flicker, or the ammeter vibrates, look for a loose conection in either the light wire circuit between battery and generator, or a bad connection in the lamp-holder or fuse clips, or a bare wire earthing intermittently.

But if all lights are dead, and the ignition and starter fail, the trouble is either a loose connection or dirt at either battery terminals or battery side of starter switch, or where battery is earthed to the frame of the car (one wire system); a connection loose or dirty on motor side of starting switch, or at the self-starter. The wire running from the switch may be broken, or a fuse burnt out.

Again, if the ignition fails while the lights and starter are operating it suggests a loose switch connection, loose distributor or coil connection, bad earthing or short circuit in the wiring. Look at the contact points and the high tension leads to the distributor.

### WATER ON THE ROADS.

The fact that many water-splashes and creeks on country roads are frequently flooded in winter months should direct attention to the brakes, which are often rendered temporarily ineffective by immersion. Unless a driver is aware of this, an emergency requiring hard braking may place him in a very awkward predicament.

The N.R.M.A. suggests that the effectiveness of the brakes should be tested immediately after a car has crossed a ford, and if efficiency has been impaired, the vehicle should be driven some distance with the brakes lightly applied so that the heat generated will dry the linings.

When there is a risk of the exhaust pipe outlet being submerged, the lowest gear should be engaged, and the vehicle driven steadily through the water with a constant pressure on the accelerator. Sharp bursts of acceleration and deceleration might cause water to be sucked up into the engine.

### TYRE MILEAGE INFLUENCED.

The Goodyear engineers claim that tyres fitted in the winter months average 30 per cent. longer wear than those fitted in the hot weather. This is not entirely due to slower speeds that are generally maintained by a sensible driver on wet roads. A tyre's greatest enemy is heat, and if speed and weather both create heat in the tyre it wears more quickly. In cold weather the heat factor is not so pronounced, and the tyres are uniformly colder. Their advice is therefore to fit new tyres in the colder months, when their anti-skid properties are an advantage. After all, safety is more economical than running smooth, worn tyres after they should have been replaced with dependable ones.

### KEEP CAR IN GEAR.

#### Coasting Downhill is Dangerous.

Here is sensible advice we culled from a country paper, and substantiates an experience we once had in attempting to save a mile of power at the expense of safety. Fortunately we got through intact, but resolved—never again!

Motorists driving cars fitted with a free-wheeling device, are advised not to coast down long or steep hills. When runing down hill with the engine free a car soon develops a speed at which it is hard to control. A great strain is thrown upon the brakes, and in the event of a sudden failure there is every likelihood of a serious smash. At the top of a hill the free-wheeling device should be put out of action and the conventional gear-top or second, according to the grade—engaged. By descending a hill in gear the pulling up distance may be shortened by from 10 to 15 per cent.

### NOISE.

The King's physician, Lord Harder, protests that noise is an important factor in causing disease by undermining the most essential part of our physical being, which is the nervous system. If we undermine the nervous system we become an easy prey to all sorts of other irritants and disease-producing elements and set into action factors that decrease our general health.

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## Beekeeping Notes

### Do Bees Damage Fruit?

#### Some Experiments Which Answer the Question.

DURING THE PAST YEAR quite a number of growers complained to the Department of Agriculture that bees were destroying their crops of Grapes, says the N.S.W. Agricultural Notes for June. In reply, the Senior Apiary Instructor explained that during a dearth of honey from the fields, bees might visit the Grape vines and suck the juices from fruit already damaged by birds, etc., but that bees were unable to bite through the skin of the fruit.

The following account of experiments carried out in Italy is taken from "The Bee World" for March, 1935.

Recently, near Bologna, Italy, a great deal of damage was done in a vineyard, and as there was a large apiary near by the bees were blamed. It was found, however, that this also occurred in districts near towns where there were many sparrows; so the researchers' suspicions fell on the birds. Two portions of one vine were selected for experiment, one being exposed to birds, the other protected from them by wire netting, but freely accessible to bees. When the Grapes were fully ripe the exposed bunches were damaged, like others in the neighbourhood, while those that had been covered were intact. Bees were observed to enter the wire cage, so that the good result was not due to their exclusion.

In another test bees were kept in an observation hive and given no food but a bunch of Grapes. If the grapes were undamaged, the bees continually licked them over until they were thoroughly polished, but (although they tried to do so) could not bite holes in them. In a few days the bees died of hunger. If small holes were made in the Grapes the bees sucked juices from them, but could neither push in their tongues far nor widen the holes with their mandibles. They could put their tongues into the larger holes and cuts, and could in these cases get hold of the skin of the Grapes at the edge of the hole and enlarge it.

Most orchardists know of the value of bees in the pollination of the blossoms to ensure of the setting of fruit, and are as pleased as the beekeeper to see the good name of the bee upheld.

## MAKING DRINKS FROM HONEY.

### Proposed Manufacture.

At the annual conference of the N.S.W. Commercial Apiarists' Association, an announcement was made that a company was being formed to manufacture and market drinks made from honey. The Excise Department is interested in the possibility of a spirit being produced which would be liable to duty, but the intention of the company is that a soft drink shall be introduced to Sydney's thirsty population.

## V.F.M.A. Executive Meeting.

A meeting of the executive of the Victorian Fruit Marketing Association was held at the board room, Commercial Travellers' Association, on Friday, May 31, 1935.

There were present Messrs. G. W. Brown (president), W. H. Carne and A. S. Harrison (vice-presidents), K. Eagle, G. Douglas, F. Cave, J. W. Bailey, F. R. Mellor, C. J. Parnham, F. Moore, W. P. Hutchinson, W. A. Webb (Doncaster Fruitgrowers' Association), W. A. Thiele and G. H. Anderson (Victoria Mark Fruit Co. Ltd.), E. Meeking (Department of Agriculture), A. G. Whitlam (University), and R. E. Boardman (secretary).

Apologies were received from Messrs. J. B. Mills, J. J. Tully, J. W. Barker, C. H. Jost and J. M. Ward.

**Bruised Fruit.**

Letter received from Superintendent of Horticulture enclosing report of meeting in London during February attended by the Agents General and the Australian tonnage committee.

The Agents General had reported on the improvements in methods of handling in Australia, and while making no specific complaints were seeking the co-operation of shipowners in order to bring about any possible improvements in the handling of fruit at U.K. ports.

Mr. Moore stated that their London representative had repeatedly drawn attention to the rough handling of Pears there. With regard to loading at Port Melbourne, supervising officers were necessary (apart from fruit inspectors) in ships' holds during the actual loading operations. It was necessary for such supervising officers to have full authority.

Mr. Bailey gave instances of rough handling during stowage which had come under his observation, and moved—

> "That the Government be approached asking for the appointment of suitable men during the fruit export season to supervise the loading and stowage of fruit in all ships' holds."

Mr. Parnham seconded. Carried.

**Litigation Re Pear Export.**

A letter was read from the Director of Agriculture giving particulars of faulty carriage of Pears last season per s.s. "Port Brisbane" from Batlow, New South Wales, and requesting consideration of the matter of assistance to the shippers concerned as regards the desirability of legal action being taken in Australia.

The chairman stated that the question as to commencing litigation in Australia for damage of fruit in transit was really a most important one. Since the famous Northumberland case it had been very difficult to get scientific evidence in England should the shipping company make its defence for faulty carriage on the plea of inherent vice and faulty condition in Australia. The evidence of local scientists was available here. The question of a fighting fund warranted close attention. There was also the matter of a capable representative in England to pursue claims which would probably need to be on an all-Australian basis.

Continuing, the chairman stated that recently Messrs. White & Sons, of Hull, had fought a case re bad delivery ex "Hobsons Bay." The claim was for £97, but the costs involved were £4,000. The plaintiffs had won the case against the shipowners, and an important principle had been established. Tasmania had already built up a fighting fund for action in this connection.

Mr. Parnham said that whereas Messrs. White had taken action in the case referred to, the launching of a legal action on the claim was of wider significance than the firm or growers concerned, and it would pay to have one capable representative for handling all claims.

It was decided to defer this matter for further consideration, and for bringing forward a definite proposal in this connection.

**Statistics of Fruit in Cool Store.**

The Cool Stores' Association wrote requesting support in their request that all stores be compelled to furnish returns of fruit in cool store from June 1 to December 1, inclusive.

Mr. Moore said that the present figures obtainable were misleading. To be of any value they must be complete. These returns were necessary to any co-ordinated marketing scheme. Similar returns were needed from the other States, and he understood the Australian Apple and Pear Export Council was seeking this information.

Mr. Bailey spoke in opposition. He considered that the desired information was valuable only to speculators, and of no use to growers. Growers had no power to deal with the fruit; this power could only be obtained through legislation. Even if returns were sent in, while nominally correct, they would not show the number of cases likely to be packed out.

Mr. Harrison urged that a request from a kindred body such as the Cool Stores' Association should be received favorably. The desired statistics should be of value. He moved—

> "That this executive support the request of the Cool Stores' Association regarding the collection of returns of stocks of fruit held in cool store."

(Continued on Page 396.)

THE . . .
# Market Grower
Items of Interest

Official Organ of the Market Gardeners and Fruitgrowers Society of Victoria.

President: E. A. Le Page. Vice President: Cr. A. Bunny.
Committee: G. Ryan, C. James, C. Baker, L. Lawrence, J. Hawkes, J. Stocks.
Arbitration Committee: H. V Barnett, W. Simmonds, E. A. Le Page, H. Besant, W. D. Barnett. Secretary: Cr. C. C. A. George, Highett Road, Moorabbin, Vic.
Also Official Organ of the Koondrook & Barham Tomato Growers' Association.

## The Pea Mite and Red Legged Earth Mite.

(By R. T. M. Pescott, M.Agr.Sc., Victorian Government Entomologist.)

FOR MANY YEARS pastures and vegetable crops have been subject to the ravages of small bluish-black mites, which, until recently, have been known in Victoria as Pea mite. However, an examination of a number of specimens of these mites from various districts has revealed the presence of two distinct species. These are the true Pea mite or blue Oat mite (Penthaleus bicolor, Frogg) and the red legged earth mite (Halotydeus destructor Jack). These two species vary in their relative numbers according to the particular districts concerned, e.g., in the areas close to Melbourne the true Pea mite seems to be predominant, whilst in the Western District the red legged earth mite is the more numerous.

The main points by which the two species may be distinguished in the field are as follow:—

The Pea Mite (Penthaleus bicolor Frogg).—Body rather globular; legs bright red; general color of body black with a reddish patch on upper surface.

The Red Legged Earth Mite (Halotydeus destructor Jack). — Body not so globular as Pea mite; entirely black without reddish patch; legs not so red as in previous species.

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### Plants Attacked.

These mites are usually found early in the season swarming and feeding on several types of introduced weeds, most commonly on Cape Weed and the two common Chickweeds. Other weeds are attacked to a lesser degree. From these plants, the mites swarm to most of the autumn and early winter-grown seedlings, whilst in the vegetable garden Lettuce, Red and Silver Beet, Potatoes, Peas, Pumpkins, Melons, Carrots and Turnips are very severely attacked.

Among crops, Oats, Lucerne and all Clovers, particularly Subterranean Clover, are most severely attacked, while Wheat and Barley are occasionally damaged, particularly when the plants have received an early check in their growth. These mites must not be confused with the red spider and Bryobia mite, which are commonly found on fruit trees—the earth mites do not climb trees or other plants which grow to any size, being confined to low-growing vegetation.

### Life History.

The mites make their appearance early in April, usually shortly after the autumn rains. At that time, eggs, which were laid towards the end of November, commence to hatch out, and myriads of small six-legged mites are to be found. The fact that the mites are able to exist over the hot summer months in the form of an egg is not generally recognised. The summer eggs are laid by the thousands about the surface of the soil, under clods, dry weeds, or rubbish. These eggs are extremely resistant to heat, drought, and desiccating winds, although some are always destroyed under these conditions. **Moisture and mild warmth such as exist in early autumn are necessary for the hatching of these summer eggs.** Later in the winter, the then fully-grown mites lay their eggs either on the soil or on the leaves of food plants, and these hatch over a period of from seven to fourteen days, depending mainly on weather conditions. The young mites hatching from these eggs are small, six-legged, and with dull red bodies.

The Red Legged Earth Mite (adult female). Left: Dorsal view. Right: Ventral view. Magnified by 20.

After several moults or sheddings of the skin, which may occupy a period up to 40 days, they become fully grown, adult mites. In this stage, the mite measures about 1-25 of an inch in length, with the body of a dense velvety black color and with eight red legs. They are capable of very rapid motion over the ground. There are several generations or broods of these mites in a year.

### Control Measures.

Measures for the control of these mites may be classed under two distinct headings—(a) Preventive, and (b) Chemical.

**(a) Preventive Measures.**—Preventive measures may be applied by growers of vegetable and garden plants, and also by pastoralists with large areas of grazing land. The small grower should not trade in seedlings or cuttings from known infested gardens. This is a very easy means of spreading the pest, as the eggs of the mite are laid on the leaves of the plant, and hatch out in several days in their new environment and commence new infestations. Over large areas of

pastures other measures are recommended. Burning off of grass or clover lands destroys the over-summering eggs. Generally speaking, however, this is not possible, as the food is required to carry the stock through to the autumn, when the young growth makes its appearance, and by that time there is not sufficient dry material left to give a satisfactory burn. Where practicable, fallowing the ground every three or four years is helpful. It takes three or four years for the mites to reach numbers in which they will do severe damage after a paddock has become infected. By turning over and burying the swards deeply before the grasses and clovers have died off, the mites will be destroyed before they have a chance to produce their summer eggs. After ploughing, the ground should be worked down to a fine tilth, and any subsequent growth of weeds or clovers on the fallow kept suppressed.

**Another method is to allow the mites' eggs to hatch in the autumn, and to turn them in thoroughly before sowing the crop.** Clean fallow throughout the early spring and summer will guarantee freedom from the pest at the time of sowing. Any later trouble can come only from an invasion from outside areas, such as dirty or weedy headlands. This can be overcome by burning off in the spring as soon as the growth will carry a fire.

**(b) Chemical Measures.**—Most chemical measures for the control of insect pests are costly, and can be used only when the crop is one of high value per acre. This is the case with these mites, and, as a rule, only the vegetable and flower grower will find that it pays to use sprays and dusts for the control of this pest.

**A method which many market gardeners have practised with success is to place a "ring" or creosote right around the fence of the paddock.**

This consists of a narrow strip (about three inches wide) of creosote, which is produced by partially flattening the end of the spout of a watering can containing the creosote. It is found that, providing the "ring" remains unbroken, the mites will not cross it for a period ranging from four to six weeks. Thus, any possible reinfestation from outside is prevented. It thus becomes necessary, then, to destroy those mites that are enclosed in the field to prevent their breeding up in large numbers. This can be accomplished by using any of the following sprays or dusts.

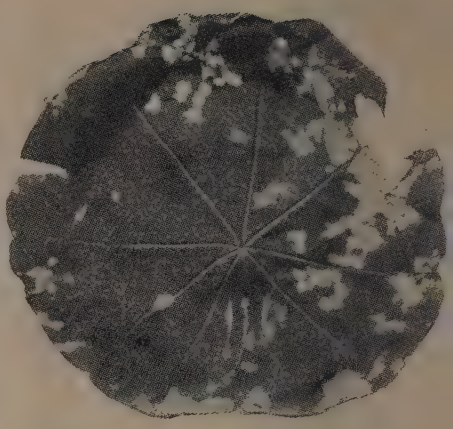
A suitable powder can be prepared by mixing together thoroughly 1 lb. of 15 per cent. carbolic powder and 4 lb. of superphosphate. This should be broadcast by hand over the affected area, or, in the case of large pastures, spread out with an ordinary farm drill or artificial manure spreader. To be effective, 1-1½ cwt. per acre should be applied. This material serves a double purpose. It has previously been stated that a plant growing freely is less subject to attack than one which is slow growing. The manure in the above material, while acting as a spreader for the carbolic powder (which actually destroys the mites) stimulates plant growth, thus increasing the resistance of the plant to attack. This dust should be applied between 11 a.m. and sundown on warm days. The mite does not become active until the foliage has become dry, and, if the dust is applied to wet foliage, the greater part of its effectiveness is lost, owing to it caking on the leaves. **To obtain the maximum results, the mixture should be applied to the plants about a fortnight after the main autumn rains, so as to kill the young mites before they have found time to do any serious damage.**

Tobacco dust (Pestend) and lime in equal quantities, and Clift's manurial insecticide also have proved successful when applied at the rate of 1-1½ cwt. per acre.

Another dusting powder which gives good results is made up by mixing half a kerosene tin of tobacco dust, a similar quantity of lime and half a pint of kerosene. The kerosene should be added to the lime and allowed to stand overnight, when the tobacco is added, and the whole mass thoroughly mixed. This is applied in the same manner as the other dusts.

**For spray purposes,**

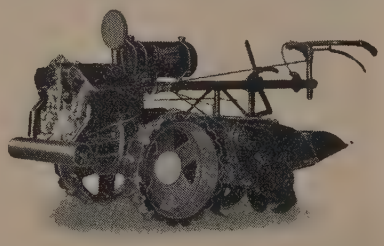
the materials recommended are nicotine sulphate or black leaf 40, 1 lb. to 80 gallons of water, to which 3 lb. of soap is added. The soap is shredded and dissolved in boiling water and then stirred into the bulk. This is a contact wash, and kills only those mites with which it comes into contact. Another suitable spray is kerosene emulsion, which may be made from 2 gallons of kerosene, ½ lb. of soap, and ½ oz. naphthalene. Dissolve the naphthalene in the kerosene, and boil the soap in 1 gallon of water. When boiling, remove to another vessel, add the kerosene and naphthalene and churn violently for ten minutes. This will form a creamy mass, which thickens on cooling. This makes a stock solution, one part of which should be diluted with eight to ten parts of water for use as a spray.—Article and blocks by courtesy of Vic. Journal of Agriculture.



**Leaf showing typical injury caused by Mite.**


# ROTARY TILLAGE

The World's oldest and largest agricultural engineers' journal, published in London, says, in its issue of April 1st, 1935.....



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## GLASSHOUSE TOMATOES.

### Suitable and Unsuitable Varieties.

NOTEWORTHY ADVANCEMENT in glasshouse Tomato growing has been made in New South Wales. Mr. John Douglas, H.D.A., N.S.W. Dept. of Agriculture, states that the round hot-house Tomato brings best prices. Best results were obtained with the "Kondine" type of Tomato, a standard, robust type, grown largely in England, New Zealand and Canada. The varieties in this type include Kondine, Kondine Selection, Planters' Favorite, and Curry's Favorite. Another favored N.Z. type is "Liberty." "Marhio" is satisfactory when not grown too closely together.

In addition to the Chinese types being unsuitable, results over several years have proved Bonny Best, the standard outdoor variety in this State, to be unsuitable for glasshouse culture.

The following varieties have also been proved unprofitable to grow in heated glasshouses—Topper, Heterosis, Marglobe, Cleft, Victor Emanuel, Dreadnought, Break O'Day, and Bonny Best. Of the Chinese types, Sam You, Curlew and Nixon have proved to be definitely inferior to the Paterson.

## SAVING TOMATO SEED.

### Method of Treatment.

TOMATO GROWERS who desire to save their own seed are advised (by the N.S.W. Dept. of Agriculture), to allow the fruit to become overripe before cutting it in halves and squeezing out the seeds and juice. The seeds and juice are then allowed to ferment for at least forty-eight hours, after which the mixture is diluted with water and vigorously agitated. The liquid is then drained off, more water is added, the mixture again vigorously agitated and the liquid again drained off. The operation is repeated until the liquid drained off is quite free of organic matter.

It is strongly recommended that, before drying, the seed should be dipped in a 1 in 1,000 solution of corrosive sublimate for ten minutes. The seed should be dried rapidly in the sun. **Care should be exercised in the handling of corrosive sublimate, even the diluted dip abovementioned being deadly poisonous.**

Tomato seed, if mature when saved, fermented correctly and stored under good conditions, will remain viable for six years.


# TOMATO SEED

## Bendigo Smooth Red

**Grown Under Government Supervision.**

This mid-season variety, growing to a medium height, has easily proved to be the heaviest cropping variety grown.

It is very meaty, has few seeds, good color and flavor, and it is more immune from splitting than any other smooth skin variety.

Tested for the last four years under Government supervision against 15 other smooth skin varieties, it has proved to be immeasurably superior in every way.

We can guarantee the seed to be absolutely true, and feel sure it will prove most satisfactory for your requirements.

**6d. and 1/- packet, 4/- ounce. 12/6 ¼ lb.; 45/- lb.**

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There is no off-season when your earnings dwindle. You have a ready market every week of the year! Furthermore, satisfaction guaranteed or spawn replaced.

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## ONIONS IN N.S.W.

In urging the extension of commercial Onion growing in N.S.W., the Director of Plant Breeding (Mr. H. Wenholz) stated that of the annual consumption of 13,000 tons of Onions in N.S.W., local growers provided only a few hundred tons, the bulk coming from Victoria.

Mr. Wenholz stated that attention was being given to the improvement of early and mid-season types. The most popular early Onion was White Barletta. For Onions of mid-season maturity, Hunter River Brown was most popular, while the strain selected by Mr. McKimm was the best of this class.

Seed of the Tomato "Bendigo Smooth Red" is offered in this issue by Law, Somner Pty. Ltd., of Elizabeth-street, Melbourne. This is a mid-season variety, growing to a medium height, and is stated to be the heaviest cropping variety grown. For further particulars see their advertisement in this issue.

## FRENCH BEANS.

Bean seed production is on the increase in New South Wales, states Mr. A. C. Orman, Agricultural Instructor, N.S.W. Dept. of Agriculture. Many growers are testing out some of the lesser known varieties, such as Negro Long Pod, Acme and New Idea. It could be stated, continued Mr. Orman, that up to the present time no variety had proved completely resistant to either bacterial blight or mosaic and farmers were advised to test new varieties only on a small scale.

**Negro Longpod in Victoria.**

It is of interest in this connection to quote the experience of Mr. Wm. W. C. Carter, vegetable seed specialist, of Murrumbeena, Vic., who writes:—

In these days when market gardeners are at their wits end to find a reliable dwarf French Bean of really good market type and appearance, any knowledge of a proved variety answering to these requirements is knowledge indeed.

Such a Bean is **"Negro Longpod"** — a quite distinct introduction, which we have tested in our trial grounds this season, as well as in several other districts.

The seed is pitch black in color, of kidney shape, and similar in size to Canadian Wonder. It produces a particularly robust plant 2 feet high, and in no instance has it shown any indication of "wilt" or any other disease, even where grown under the worst conditions. One sowing was made a fortnight previous to the early December floods, yet has shown no ill effects.

In appearance, the pods closely resemble well-grown Canadian Wonders, being quite as long and fleshy, and, if anything, more productive. As evidence of this, we have picked 40 matured pods from a single plant at one time, and have no hesitation in saying we consider **"Negro Longpod"** destined to become the most popular market Bean, possessing as it does every desirable quality.

Made in Australia
GERRARD
WIRE TYING MACHINES
STAND THE TEST FOR
SPEED OF OPERATION
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APPLE AND CITRUS PACKING CHARTS ARE AVAILABLE FREE ON APPLICATION....GERRARD SERVICE

## VICTORIA MARK FRUIT.

### "Mark" Fruit Brings Higher Returns.

### Outlet Found for Lower Grade Apples.

The Directors of the Victoria Mark Fruit Co. Ltd. convened a meeting at Melbourne early in June to discuss plans for the improved marketing of fruit in Victoria. The chairman of directors (Mr. W. A. Thiele) said that Victoria Mark Extra Fancy grade Apples were bringing 9/- per case on the market, compared with 7/6 a case for similar grade Apples in other packs. The mark, wrappers and levy in all cost 7d. per case, but next season these costs would be greatly reduced by having the wrappers printed abroad.

Arrangements had been made for the sale of substantial quantities of lower grade Apples for processing purposes. The directors had inspected a processing plant at Bendigo where 1,000 tons of Apples could be treated for the pastrycook trade.

Various suggestions for improving the industry were made by Messrs. J. J. Tully, F. Moore and F. Cave.

## OBITUARY.

Mrs. A. G. Robinson, relict of the late Mr. A. G. Robinson, of Narre Warren, Vic., passed away early in June, thus removing another of the pioneers in the fruit industry.

Mr. Matthew Trewhella passed away early in June, aged 94. A pioneer of Trentham and Blackwood districts, Mr. Trewhella engaged in mining in the very early days at Blackwood goldfields.

The Trewhella family is famous for their world-renowned jacks and wrenches for tree felling and land clearing.

## FEEDING YOUNG PIGS.

YOUNG pigs should be taught to eat by providing a pen in which they will not be molested by the sow. They should begin to eat at three to four weeks, but if taught to eat earlier than this, the weaning will be an easier process and they will not miss the mother's milk so much. Three times a day they should be given as much as they will readily clean up, this should be such as will push their growth forward well.

Five rations, for young pigs on pasture, are recommended by the Missouri (U.S.A.) Agricultural Experimental Station as giving good results:—

Ration 1: Maize 4 parts, shorts 4, bran 1, tankage 1.
Ration 2: Maize 6 parts, shorts 3, tankage 1.
Ration 3: Maize 9 parts, tankage 1.
Ration 4: Maize 1 part, shorts 1.
Ration 5: Maize 1 part, skim milk 4.

## TEETH OF A PIG.

When full grown, a pig has 12 incisors, or front teeth, six in the upper and six in the lower jaw, besides two canine teeth in each jaw. There are also seven molars on each side of both upper and lower jaw, making a total mouth of 44 permanent teeth in all.

## WEANERS.

The re-mating of the sow often determines the age at which the youngsters must be weaned, as does also their own growth and development. If they can be left with the mother as long as twelve weeks, so much the better, but she should have a spell and be given time to recuperate before breeding another litter. After the litter is weaned off, the sow should be liberally fed, but may be given coarser food than when she was suckling.

## Citrus Export

### Is Mid-July Too Early to Close Navel Export?

### What of Late Districts?

The fruit export department of the Producers' Distributing Society, Melbourne, has approached the Commerce Department, requesting permission to export Navel Oranges from two districts — Murrabit (Vic.) and Barham N.S.W. — up to mid-August, experience having proved that these late districts can export satisfactorily a month later than the official closing date of Navel export (July 15).

## FERTILISER SUBSIDY.

The Commonwealth Government has decided to continue for twelve months, from July 1, 1935, the subsidy to primary producers of 15/- per ton on artificial manures used in the cultivation of primary products, other than wheat. The conditions are similar to those operating in the previous two seasons. It is intended, however, to provide for payment of the subsidy on half-ton lots.

This subsidy has proved of great assistance to primary industries.

---

The Department of Commerce states that numerous cases have come under notice where persons have lodged claims for payment of artificial manure subsidy for which they had already received payment. The department states that such action is a breach of the Financial Relief Act, and persons guilty render themselves liable to a penalty of £500, or imprisonment for two years.

## MUSHROOMS SHOW GOOD RETURNS.

Remarkable advances have attended the growth of the Mushroom industry in this country during the past few years. No doubt the steady demand and the good prices ruling have forced growers to adopt a more scientific attitude, in order to get the maximum of profit, but credit must really be given to the research workers here and abroad. It is they who, more than anyone else, have made the industry the profitable business it now is.

An interesting example of this perfection of technique is the enterprise of the British Mushroom Industry Ltd. in its efforts to export the finest spawn to Australia. In the ordinary course of events the changes in temperature on a trip out from England have an adverse effect on the fertility of spawn. This has been overcome by this company by sending the spawn out in sealed, airproof containers, which are kept at a steady temperature throughout the voyage. Thus the laboratory-produced bottle culture, the finest spawn available from the company's headquarters at Covent Garden, London, arrives for local distribution with its fertility unimpaired.

Another example of the enterprise of this company is its distribution, to every grower from their spawn, of details regarding the "culture-graph" method of growing. This embodies the latest advances in growing methods abroad, and makes for a maximum production and minimum expenditure, both of money and labor. It is things like this that attract the outsider into this profitable field.

Because, with modern attention, they can be grown anywhere and at any time of the year, Mushrooms offer a steady source of income for very little labor. The element of chance has been removed, and the whole business placed on a scientific footing. There is no longer need to fear about the price to be received for growth — spawn prepared under scientific conditions will always produce Mushrooms of a texture and size to command the highest prices on an already good market.

## SULPHUR SPRAYS.

The history of sulphur sprays is a particularly interesting study, some records date back as early as the year 200 B.C., and from this early period, sulphur, used by numerous methods, has been constantly employed up to the present time.

The advent of concentrated lime sulphur solutions in 1851, first introduced by Grison, and known as "Grison's Liquid," marked a very prominent step in the development of this type of spray.

Continued experimenting and research by experts over all the years since 1851 has had its culmination in the production of a concentrated lime sulphur solution having a very high polysulphide sulphur content. It is now established that the polysulphides alone possess fungicidal and insecticidal properties, and a lime sulphur solution having the highest polysulphide sulphur content is regarded as the best possible quality.

The quality of lime sulphur that has been marketed over recent years has not given orchardists the best results, but it is pleasing to know that Victor Leggo & Farmers Ltd. have now made available to orchardists "Vallo" Lime Sulphur Wash with a very high polysulphide sulphur content, which is guaranteed to contain not less than 16 per cent. polysulphide sulphur weight to weight, or 20 per cent. weight to volume.


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**GERMANY.**

**Bremen:**
Fruchthandel, Gesellschaft.

# 1935 APPLE AND PEAR EXPORT.

## LIGHTEST SEASON SINCE 1931.

**4,779,300 Cases From Australia.**
**1,063,700 Cases from N.Z., of Which 798,585 Went to U.K.**

The Apple and Pear Export Season for 1935 has closed, the figures being as follow:—

EXPORTS OF APPLES AND PEARS. FROM AUSTRALIA.

APPLES—CASES.

| Exporting States. | 1st Jan. to June. 1935. | Continent. | Eastern Ports. | Pacific Isles. | U.K. | All Countries. |
|---|---|---|---|---|---|---|
| | | Principal Destinations. | | | | |
| N.S.W. | 22nd | 2,098 | 31,706 | 2,410 | 157,751 | 194,238 |
| Victoria | 22nd | 45,979 | 6,593 | 261 | 461,087 | 517,198 |
| Queensland | 15th | 509 | 3,060 | 76 | 3,603 | 7,473 |
| Sth. Aust. | 22nd | 67,929 | 10,848 | — | 187,498 | 266,475 |
| West Aust. | 8th | 178,774 | 31,650 | — | 567,015 | 807,132 |
| Tasmania | 15th | 71,109 | 1,570 | — | 2,312,680 | 2,418,678 |
| Australia | — | 366,398 | 85,427 | 2,747 | 3,689,634 | 4,211,194 |

PEARS—CASES.

| Exporting States. | 1st Jan. to June. 1935. | Continent. | Eastern Ports. | Pacific Isles. | U.K. | All Countries. |
|---|---|---|---|---|---|---|
| | | Principal Destinations. | | | | |
| N.S.W. | 22nd | — | 9,202 | 1,522 | 12,975 | 25,579 |
| Victoria | 22nd | — | 4,292 | 60 | 318,602 | 323,244 |
| Queensland | 15th | — | — | — | — | 250 |
| Sth. Australia | 22nd | — | 562 | — | 30,831 | 31,588 |
| West Australia | 8th | 2,450 | 367 | — | 26,751 | 30,050 |
| Tasmania | 15th | — | — | — | 157,224 | 157,395 |
| Australia | — | 2,450 | 14,423 | 1,582 | 546,383 | 568,106 |

Exports from New Zealand were:—Apples, 942,743 cases; 120,957 cases Pears,—a grand total of 1,063,700.

The principal destinations were to U.K. (in cases), Apples 704,708, Pears 93,877; Sweden, 46,589 Apples, 27,080 Pears; Continent, Apples 80,164; Canada, 47,377; U.S.A., 20,370; South America, 42,579; Eastern Markets, 956.

Of the quantity for the Continent, 25,000 cases went to Hamburg.

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In the 1934 export season the Apple and Pear exports from New Zealand were — 1,576,023 cases (of which 1,449,952 were Apples): the decrease is therefore 512,323.

## THE EXPORT SEASON REVIEWED.

Reviewing the 1935 export season, the Superintendent of Horticulture (Mr. J. M. Ward) states that up to May 8, 506,218 cases of Apples were exported, this number being 16,389 less than the estimate. Shipments of Pears, however, amounted to 319,507 cases, which was 66,247 cases above the estimate.

Plum export was a record, the quantity shipped being 16,387 half cases. In all, 841,908 cases of fruit were exported to U.K. and Europe.

In the 1934 season 35,332 cases were rejected as being unfit for export, but this season only 11,090 cases were rejected. There had been a marked improvement in the pack.

Owing to complaints from London re the Jonathan variety, it would probably be necessary for growers to harvest their Jonathans within a period of from two to three weeks and to cool store them pending shipment. Of the cases used, 95 per cent. were (Canadian) standard, compared with 60 per cent. last year. The 1936 season will probably see the last of the "dumps" from Victoria.

The satisfactory arrivals of Williams Pears shows that with correct attention this variety is suitable for export.

Plums were variable on arrival: the Department of Agriculture is conducting enquiries in order to advise growers.

# ORGANISATION IN N.S.W.

**Growers and Merchants Co-operate. Objectives Include Improved Transport, and Co-operative Handling of Requisites.**

(The Editor, "Fruit World.")

Dear Mr. Editor,—Re new Fruit and Vegetable Produce Association.

In regard to the formation of a new trade association, there appears to be some misapprehension on the part of certain people within N.S.W., who have heard reports and rumors, and others who have had confidential preliminary memoranda placed in their hands.

I request, therefore, that I be permitted, per medium of your valued journal, to give (what is actually advance information regarding the undertaking in question) to all who may be interested in the welfare of the fruit and vegetable industry.

Firmly believing that no industry can procure true prosperity, **unless all essential elements co-operate** in the common good, many of those engaged in the fruit and vegetable growing and distributing sections of the industry have from time to time expressed the view that a mutual workable understanding between these two main elements would greatly add to the successful development of the industry.

Many of my contemporaries on the distributing side, whilst appreciating certain activities and results from such associations that have functioned from time to time, are of the opinion that such associations' activities have not resulted in the accomplishment of many things desired necessary—for example:

(a) Suffcient protection of members' interests.
(b) Due prestige to the many honorably conducting their businesses.
(c) Co-operation with the producer in the common good,

and so forth.

**Preliminary Statement Prepared.**

After many years of close association with all elements of the industry, I, considering that I had a good knowledge of the requirements of the fruit and vegetable industry, and particularly of the selling sections of such, was of the opinion that before any association could be launched or before any meetings satisfactorily conducted, that it would be necessary to have a scheme in outline propounded, and made available in documentary form for discussion.

Thereupon, I prepared, without consulting any of my contemporaries, certain memoranda, outlined as follows:—

(a) Framing a preamble, stating my reasons for my opinion that an association of a substantial character was necessary. (b) Suggested functions. (c) Method of administration.

When such memoranda was prepared, copies were made and posted, with a covering note to certain persons, inviting them to discuss the matters set out in such with me, asking them at the same time to treat the memoranda as confidential. After perusal and discussion, the idea in principle was agreed to, and those who attended this preliminary meeting were constituted as a committee for the furthering of the idea within the trade.

Other members of the trade were then provided with copies of the confidential memoranda, and invited to what may be termed the first general meeting of those desired as foundation members. Such persons were requested to treat the memoranda as confidential, as it was the product of only one man's mind, and necessarily would require certain and perhaps very definite amendments.

**Producers and Distributors to Co-operate.**

As the aims and objects, articles of association, and administration of the association have been for the past few weeks under review, and as discussion relative to such matters are not yet nearly complete, I am unable to give full details. Suffice it will be at this stage to assure all those interested in the well being of the two main sections of the fruit and vegetable industry—producers and distributors—that the association is being formed mainly

(a) To remove from the trade any stigma attaching to it that may be deserved or undeserved, by members conducting their businesses in such a manner that will leave no room for suspicion, and by each and every member doing all in his power, by the honorable conduct of his business to uplift the prestige and status of agents and others generally.
(b) To study the real and peculiar interests of members.
(c) To co-operate in every practical manner with growers, particularly through their organisations.
(d) To do all or such things that will assist towards the fullest practical, commercial and scientific development of the industry.
(e) To trade in materials and goods used by members, growers and others.
(f) To engage in transport services.
(g) To supervise generally the handling of fruit, vegetables, and other produce, particularly the loading and unloading at wharves, railway stations, markets, cool stores, etc., thereby preventing rough handling, and to ensure that such goods are handled with the greatest possible care.


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(h) To ensure equitable rates of cartage, cool storage, and the lowest possible transport rates.
(i) To strive for improved railway and wharfage accommodation.
(j) To ensure best practical market facilities and service being given by the municipal council, and also that equitable rents be charged.
(k) If necessary and practical, to lease, build, own and administer markets, cool stores, packing houses, etc.
(l) To provide essential statistics and information of value to members.

The above aims and objects are more or less agreed upon by the provisional committee dealing with the development of such matters for presentation to a general meeting for confirmation or otherwise.

As misunderstandings may arise in regard to transport services, it may be advisable to state definitely that it is the desire of the association to co-operate with and to represent fruitgrowers' transport organisations at the Sydney

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end, and to remove any outside organisations that may be parasitical.

In the opinion of members of the trade there are three definite sections in the industry — Producers, distributors, carriers—and that no other organisations are necessary or desirable if these three bodies co-operate and work to the common good.

Numerous instances of what at least appear to be obvious

**overcharges of freight**

have occurred, but definite information is not permitted to be obtained, because it is stated not to be the agents' business to make such enquiries as are necessary to ascertain the actual freight charged in respect to his grower clients' consignments, because the goods are not specifically consigned to him. But comparison with direct consignments from same or similar sources at least suggest that certain freight charges are excessive.

When growers mutually arrange charges for service with their respective organisations such is considered to be growers' own peculiar business, but in other phases of transport organisations, where growers are compelled by force of circumstances to operate through certain channels, it is the opinion held by agents that as they are the persons who make the payments of transport charges, that they are in duty bound to see that as far as is practical for them to do that freight and other transport charges as are made are correct.

Further misunderstanding may arise in respect to the trading in materials and goods used by growers, etc.

The idea is, that speaking generally, the larger the quantity of respective kinds of goods or materials that can be purchased at any one time, so much finer is the purchase price. **It is considered that by co-operating in purchasing of supplies in bulk, both agents' and growers' organisations can make very considerable savings.**

It is desired, if found practical, that under a mutual agreement the new association may be able to purchase all supplies and make same available to growers in wholesale lots at invoice price plus just a sufficient charge to cover actual cost of handling such service.

Time, space or opportunity will not permit of further development of the association's intentions, but when the whole articles are completed and agreed to, it is the intention of the committee to discuss in detail the complete organisation with the N.S.W. Fruitgrowers' Federation and other fruitgrowers' organisations, and to give to the press a fuller statement stating names of persons, firms and corporations who are members.

I hope that from what I have stated, growers at least will appreciate that the new association does not desire to do anything but that which will not have the heartiest support of their organisations.

I make the above statement personally and as chairman of committees of the association now being developed—the name of which has not been definitely decided upon.—L. J. Jenkins.

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WISE & STIRLING, Municipal Fruit Markets, Sydney wholesale fruit and produce merchants. Com. 20/5/35. Proprietor: Charles S. T. Wise. Registered 21/5/35.

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(Continued from Page 386.)

Mr. Hutchinson seconded. The motion was carried, there being four dissentients.

**Arsenical Residue.**

Letter received from Mr. A. G. Campbell, Kilsyth, stating that the inspection of Apples and Pears for export was now so severe that dry stings did not pass, and no credit was given for the use of insecticides. He suggested: (a) That the Department of Agriculture should cause every fruit tree not attended to be destroyed; (b) That the onus of removing codlin moth and arsenical residue be placed on the shopkeeper exposing same for sale.

Mr. Carne said there was insufficient country supervision of orchards. Some orchards were never sprayed at all. He knew of small orchards of some 30 or 40 trees where pests were allowed to breed.

**Fruitgrowers' Relief Grant.**

Mr. Carne spoke of the difficult season experienced by growers, and asked if a Relief Grant on a similar basis to the two preceding seasons would be available this year.

The chairman agreed to make the necessary enquiries, and, on the motion of Messrs. Moore and Carne, this matter was left in the hands of the chairman.

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## JUNE MEETING OF V.F.M.A.

AT the June meeting of the V.F.M.A. Executive, it was decided as follows:—

**Neglected Orchards:** To press for these to be cleaned up or grubbed out.

**Relief Grant:** To support the request for £125,000 grant from Federal Government—in lieu of freight reduction.

**Fungicides Act:** Amendments now before Parliament giving increased power to regulate standards of spray mixtures approved.

**Field Days:** Tentative date Pakenham Field Day (Mr. Ahern's orchard): Thursday, July 17. Other field days to be arranged at Harcourt, Red Hill, Burwood E., Croydon and Panton Hills.

**Marketing Bill:** Amendments as drafted by Committee, approved and sent to Minister for Agriculture.

**"Fancy" Grade Apples:** Suggested grade allowing 3 per cent. superficial blemish on each Apple, deferred till next meeting.

**Horticultural Research:** V.F.M.A. to be represented at deputation to Minister of Agriculture on July 10, requesting £5,000 for five years for experimental orchard and increased horticultural research.

Mr. E. I. Lawford was reappointed delegate on Trade with the East Committee.

Mr. T. J. Fuller, Pakenham E. was elected a new member.

QUICK SALE BY AUCTION

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Cables: Orange Bremen.

The President of the Victorian Fruit Marketing Association (Mr. G. W. Brown) said that voluntary organisation along the lines of the Victoria Mark Fruit Co. was on sound lines, and he urged the directors to carry on the good work and to educate growers as to the programme in hand.

Mr. E. W. Thompson, Secretary of the Retail Fruiters' Association, stated that the company's work had been successful. A good demand for Victoria Mark fruit existed. The only difficulty was the lack of continuity of supply.

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The Editor,—

Sir,—

I am pleased with your paper, for it is up to date with all information concerning fruitgrowing and methods of utilisation and distribution.

(Signed) "G.H.P.",

Bickley, W.A. (13/2/35).

## FRUIT RETAILERS' ASSOCIATION.

### Upright or Dump Case for Local Marketing.

### Retailers Favor Dump Case for Hard Fruits.

AT THE JUNE MEETING of the Melbourne and Metropolitan Retail Fruiterers' Association, a general discussion took place in reference to the upright cases generally used for the marketing of Apples, Pears, Quinces and other hard fruits by growers who market their own fruit at the Queen Victoria Market, and it was considered that in the interest of both grower and retailer, it was desirable that an effort be made to have the dump case more generally used instead of the upright cases, as at present.

**Retail fruiterers consider that the dump case would be more easily packed by the grower, and less liable to bruise the fruit,** and, as they have in most instances, to supply a case, they should be permitted to provide whatever style they prefer, providing it is a case complying with the legal requirements.

**As many of the upright cases in use at the present time are very dirty and in their last stages and also detrimental to the fruit contained therein, they should be despatched to the wood-heap,** and as there is no scarcity of good, clean dump Orange cases, there would be no inconvenience or loss to either grower or retailer by the change.

Against the proposal, the argument may be used that some growers' trucks have been built to certain measurements to suit the present style of cases, but,

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with the numerous styles and shapes of cases used by many growers at the present time for the transport of their fruit the argument is shattered, and retailers trust the various growers will gradually change over without either loss or inconvenience to anyone concerned.

[As Orange "dump" cases are mentioned by retailers, the question is asked as to whether they mean the Orange (Canadian) standard case (18 x 11½ x 10½) or the Apple dump case (18 x 8-2/3 x 14¼)? The last-mentioned is now being superseded, for export at least, by the (Canadian) standard.—Ed., "F.W."]

### APPRECIATION FROM WESTERN AUSTRALIA.

(The Editor, "Fruit World.")

Dear Sir,—The "Fruit World" is appreciated by quite a big number of fruit growers in this State.

I feel that you and your journal are doing a very great service to the fruit-growing industry. — Yours faithfully (signed) H. W. Soothill, Perth, W.A. 21/5/35.

### PROSECUTIONS.

For having failed to effectively eradicate codlin moth in his orchard, Joseph Barnard, Greythorne-road, Balwyn, Victoria, was fined £5, with £1/1/- costs.

Inspector Wilfred Rolfe stated that when he inspected Barnard's twelve-acre orchard in February he found 80 per cent. infected with codlin moth. Barnard was served with a notice to eradicate the pest in three weeks, but failed to do so.

A number of orchardists were recently prosecuted at the Leeton Police Court for failing to destroy fallen fruit. These regulations were for the prevention of the spread of fruit fly. A fine of £2 was imposed, with 8/- costs.

### APPLE WIPING MACHINE.

The Apple wiping machine invented and patented by Mr. G. Phillips, of Croydon, Vic., has proved satisfactory wherever used by growers and packing sheds this season. The device is an ingenious one: the fruit is wiped clean: the operation is rapid and there is no bruising.

# Market Reports and Prices.

### APPLE PRICES RISE.

**London, 17/6/35.**

Prices of Apples have risen sharply on moderate supplies and a shortage of soft fruits. Quotations are as follow:—Tas. Sturmers, 9/6 to 11/9; Scarlets, 9/6 to 11/-; Jons., 10/- to 11/-; Cleos., 10/- to 11/6; Crabs, 10/6 to 12/-. Vic. Rokewoods, 11/- to 12/-; Romes, 11/6. S. Aust. Cleo. 11/- to 11/9; Romes, 11/- to 11/3; Rokewoods, 11/- to 12/-. W. Aust. Dunns, 11/- to 12/-; Granny S., 13/- to 15/-; Cleo., 11/- to 11/6.

### NEW SOUTH WALES.

**Sydney** (25/6/35): Mr. L. T. Pearce, market representative for the Fruitgrowers' Federation of N.S.W., reports as follows:—**Apples:** Cleo. 5/- to 7/-, Del. 6/- to 14/-, Demo. 5/- to 8/-, French Crab 4/6 to 6/6, G. Smith 5/- to 11/-, Jon. 5/- to 10/-, L. Pippin 4/- to 6/-, R. Beauty 5/- to 8/-, Scarlet Pearmain 4/- to 6/6, Sturmer 4/6 to 6/6, Winesap 5/- to 8/-. **Pears:** B. Bosc 5/- to 8/-, Glou Morceau 5/6 to 9/-, Howell 5/- to 8/-, Jos. 7/- to 10/-, few 11/-, Packham's T. 5/- to 11/-, few 12/-, W. Cole 7/6 to 11/-, W. Nelis 5/6 to 10/-.

**Comments on the Apple and Pear Position:** Approximately 23,000 cases arrived from Tasmania on the 24th inst. **Apples:** The market was practically bare of good quality fruit, and only small supplies of inferior fruit remained unsold. **Pears:** Average sales were slightly lower owing to average quality being mostly plain grade.

**Bananas:** N.S.W. and Qld. 9/- to 18/-, few spec. to 22/-, Norfolk Island 9/- to


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All Orchard Supplies available at all times.

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**Hobart.**

*Herbert Wilson*

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**7, Stony St., Borough Market, London, S.E.**

— and —

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**SHIPPING NOS.: 431 and 432.**

12/- trop. case. **Custard Apples.** Qld. 2/6 to 3/6 half, ripe lower. **Citrus Fruits: Grapefruit,** N.S.W. Inland 5/- to 8/-, few 10/- bush., local 3/- to 5/–, few spec. to 10/-, Lemons, N.S.W. 2/6 to 5/- bush. Mandarins: Thorny and Imperial 2/6 to 4/6 half; Emperor 5/- to 6/–, few higher per bushel, others 1/6 to 4/– bush. Qld.: Emperor 8/- bush.; Beauty of Glen Retreat 11/- to 12/-. Navels, N.S.W. 3/- to 5/-, few special inland to 7/-. Other Oranges 1/- to 3/– bush.

**Papaws,** Qld. 9/- to 12/- trop. case. Passionfruit, N.S.W. 7/- to 10/-, spec. to 14/-. **Pineapples,** Qld. Queen, 8/- to 12/- trop. case. **Tomatoes,** N.S.W. MIA and Mangrove Mt. 2/6 to 5/–, few to 7/- half; Repacked 4/- to 7/–; Qld. 4/– to 6/– half. Mangrove Mountain supplies appear lighter, M.I.A. continue to arrive. Queensland fruit continues of good quality, although the cold weather experienced has repelled consumption of this fruit.

## COMMERCIAL NEWS.

The business of J. O. Sims, fruit merchant, which has been carried on for many years at the Borough Market, London, has been turned into a limited company. Mr. J. O. Sims is life managing director: his co-directors are his son, Mr. Wilfred Albert Sims, and his son-in-law, Mr. Richard H. Roe.

## VICTORIA.

### Market Report or June.

LITTLE can be said regarding fruit sales at the Victoria Markets. Movement was a trifle slower than usual with no marked advance in supplies. Prices on the whole were fair, but no very noticeable fluctuations arose, slight firming in last week.

**Apples:** There was a little better demand, popular varieties being favored and prices normal.

**Citrus:** Orange supplies good, with a fair demand for average prices for June. Lemons and Mandarins were in short demand. Grapefruit, though supplies were light, they were enough for the demand and prices remained fair.

**Pears:** Sales not heavy. Packham and Beurre Bosc were most sought, but even these varieties were light.

**Bananas:** Supplies fair, a little on the small size, prices moderate, if anything a slight slump.

**Passionfruit:** Slight advance was seen for good quality.

**Pineapples:** Supplies and demand maintained. Prices satisfactory, quality good.

**Tomatoes:** A few Portlands offering and taken. Fair demand for glasshouse stocks with firm prices. A few Queensland offerings but quality only medium.

**Melbourne** (28/6/35): Prices quoted by the Wholesale Fruit Merchants' Association were as follow:—Per case: Apples, 4/- to 7/-; few higher; cooking, 2/- to 5/-. Bananas, per double case, green, 8's and 9's, 13/- to 14/-, few higher; 7's and 6's, 8/- to 10/-. Custard Apples, 3/- to 4/- half case. Oranges: Navel, 5/- to 8/-; wrapped, 1/- to 2/- higher. Lemons, 5/- to 7/-, few higher. Mandarins, 4/- to 8/-; special, 10/-; Paw Paws, 8/- to 12/- double case, few higher. Passionfruit, 10/ to 16/-; special, higher. Grapefruit, best, to 8/-. Pears, 4/- to 6/-; few higher. Pineapples, 8/- to 11/-.

The Melbourne market manager of the Federal Citrus Council of Australia reports sales as follow:—Navel Oranges: Wash., average standards, including N.S.W., 4/- to 5/-; few 5/6; selected standards, 6/- to 9/-; few specially selected, higher. Common Oranges, 4/- to 6/-, according to count and quality. Grapefruit, average standards, to 5/- and 6/-; few 7/-; selected standards, higher. Lemons, good standards, to 6/-; few 7/-; selected standards, to 8/-. Seville Oranges, smooth skinned, few 4/- to 7/-, according to count. Mandarins, Sydney Emperors, 4/- to 6/-; few 7/-; good Vic. varieties, 5/- to 7/-; few 8/-.

## SOUTH AUSTRALIA.

**Adelaide** (21/6/35).—Apples (eating) 6/- to 8/-, cooking 5/- to 6/- case; Bananas 18/- to 20/- crate; Lemons 7/-, Oranges (blood) 5/–; Mandarin 10/– to 11/-, (navel) 7/– to 8/–, (Poorman) 6/- to 8/–; Passionfruit 16/-; Pears (eating) 9/– to 10/–, cooking 4/-; Pineapples 14/- to 16/- case; Quinces 4/– case (cases extra).

## QUEENSLAND.

**Brisbane:** Messrs. Robsons Pty. Ltd. report under date June 19, as follows:—Choice **Apples** have been scarce here during the past week, Jons. realising to 9/6, Cleos. 8/-, Scarlets and Aro's 7/6, Crabs and G. Smiths to 9/–. Values obtained for **Citrus** have been as follow: Oranges to 6/-, Navels to 9/–, and Mandarins to 11/–. **Custard Apples** have been in plentiful supply: Sales being 2/-, with odd lots to 2/6. **Pineapple** values are slightly easier, choice Smooths selling to 7/- case. **Winter Coles** are maintaining firm rates, popular sizes

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realising 13/-. Best quality **Tomatoes** are selling to 5/-: sales for same not being very brisk. The market is glutted with **vegetables**, especially Cabbage and Cauliflowers, the former selling at 1/6 dozen, and the latter to 5/-. Other vegetables are selling as follow: Beans 4/- bag, Peas 5/- bag, and Turnips, Carrots and Beetroot to 1/6 dozen bunches.

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**Brisbane**, 22/6/35.—Messrs. Clark & Jesser report as follows: During the past month both Apples and Pears have been realising better prices than the month previous. The last week Jonathans rose as high as 11/-, this being the highest price realised this season. Good supplies of Granny Smiths are still arriving, the principal source of supply being from Kentucky, N.S.W.

The ruling prices at present are:—Apples: Jons., 9/- to 11/-; S.P.M., 8/6 to 9/6; Cleos., 9/- to 10/-; R.B., 8/- to 9/-; S.T.P., 7/6 to 8/6; F.C., 8/- to 8/6; Granny Smiths, 9/- to 9/6. **Pears**: W.C., 12/- to 12/6; W.N., 10/- to 11/-; Jos., 11/- to 12/-; P.T., and other good varieties, about 10/-. **Oranges**: 4/- to 5/-; Navels, 6/- to 7/6; Mandarins, Emp., 5/- to 6/-; Scarlets, 6/- to 7/-; Glens., 7/- to 9/-. Custard Apples, 2/- to 2/6 per ½-case; Tomatoes, 4/- to 5/-; Pumpkins, 4/- per cwt.; Pineapples, rough-leaf, 2/6 to 4/- per doz., smooths, 4/- to 5/- per doz., or 6/- to 7/- per case; Bananas (singles) 8's 13/-, 7's 11/-, 6's 9/-. Cabbage very plentiful, and choice selling 2/- to 2/6 per dozen. Cauliflowers were very cheap in the earlier part of the month, but now are realising 6/- to 8/- per dozen. Pears, 5/- per sugar bag; Beans, 3/- to 5/- per sugar bag; Carrots, 2/- per doz. bunches; Beetroot, 2/- to 2/6 per doz. bunches. The weather is cold and dry.

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## WESTERN AUSTRALIA.

**Perth** (21/6/35): Apples: Jon. dumps, plain and small, 4/- to 5/-; standard 5/- to 9/6; prime to 10/6; Dunn's Seedling, dumps, plain and small 2/6; standard 3/- to 6/-; R. Beauty, dumps 2/6 to 5/6; Yates, dumps, 3/6 to 8/6; prime to 9/-; Cleo. dumps, plain and small, 3/- to 4/-; standard 4/6 to 6/6. Doherty, dumps, 4/– to 6/–; citrus: Navel, flats, 2/- to 5/-; dumps 3/- to 6/6; Lemons 1/6 to 4/-; Mandarins 6/– to 10/- (special to 13/–); other lines: Pears, W. Nelis, three-quarter bushels 4/- to 6/6; Keiffers, bushels to 8/6; Passionfruit, 14/- quarter bushel; Tomatoes 7/- to 9/- (inferior from 1/-, special to 11/-).

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## NEW ZEALAND.

**Dunedin** (15/6/35): Messrs. Reilly's Central Produce Mart Ltd. report as follows: During the week business has been fair, the demand being principally for vegetables, although choice lines of Jons., Cleos. and Sturmer Apples are in short supply and prices for these varieties have shown an advance. Supples are wanted. Del. are still in excess of requirements and fairly low values prevail. Pears are wanted and choice lines of W. Nelis and cooking Pears are bringing increased values.

**Prices**: Bushel and American cases: Apples, choice Jons. 6/–, 7/–, Del. 4/-, 6/-, Sturmers 6/-, 7/6, Cleos. 7/-, cookers 4/-, 5/–. Pears, W. Coles 7/–, 8/-, W. Nelis 7/–, 9/–, P. Barry 8/–, Marmalade Oranges 10/-, Cal. Valencias 40/-, Grapefruit 40/-, Lemons 45/–, Island Oranges 20/-; Bananas, ripe Niues 18/-; N.Z. Lemons, 1st grade 12/-; Pines 16/- to 21/-. Half cases: Pears W. Coles 4/-, W. Nelis 4/6; Passions wanted.

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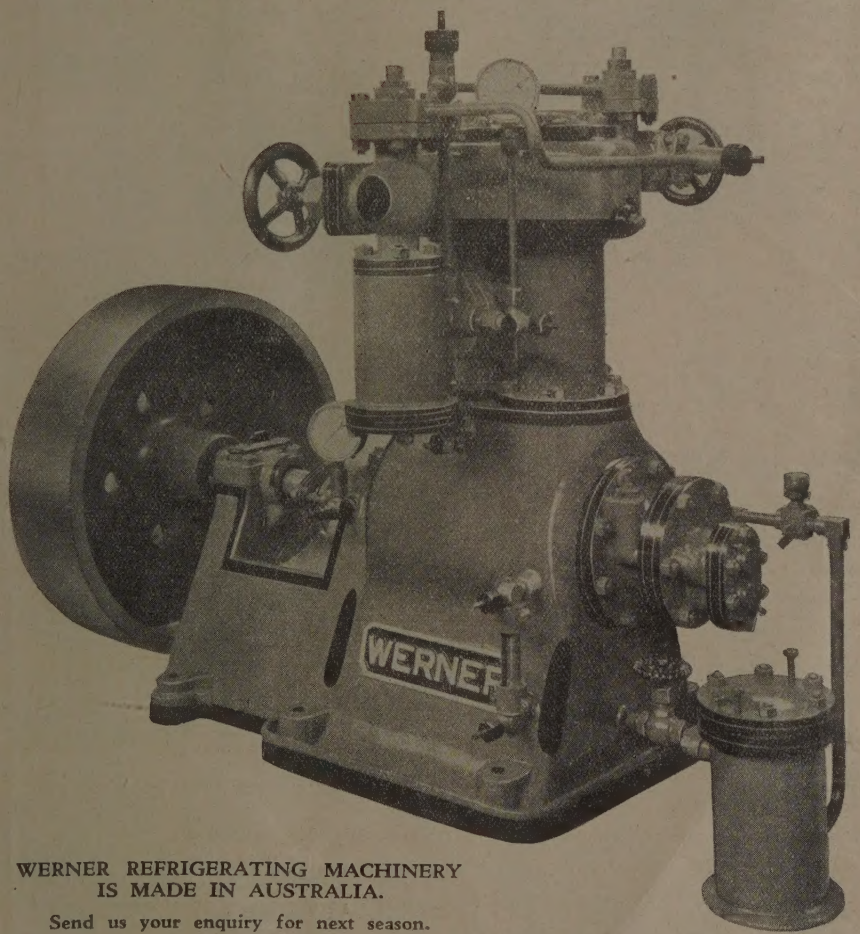


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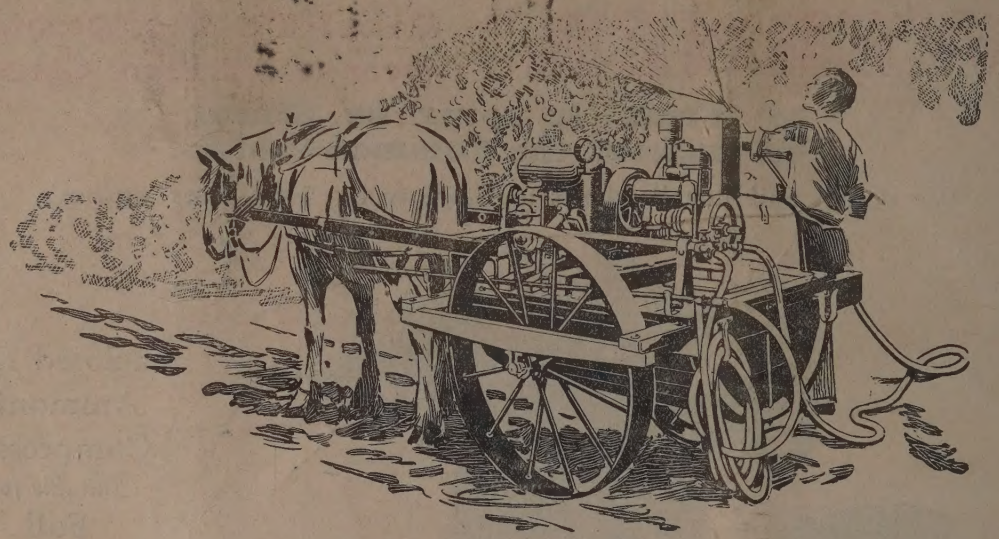

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